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# TURKEY

## An Economic Appraisal

BY

MAX WESTON THORNBURG

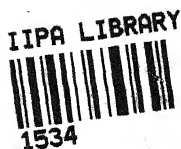
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## FOREWORD

PRESIDENT TRUMAN in his inaugural address to Congress on January 20, 1949 drew the floodlights of world attention to what he called a "bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas." This book deals with such an area—Turkey—and it was chosen, indeed the whole survey was completed, before the President made his historic announcement. The Fund hopes that this report will lay the intellectual groundwork for carrying out any program of American aid that may be forthcoming to this ancient country whose importance, at this juncture in the world's affairs, is obviously crucial.

The Fund chose Turkey for the subject of this study even before the announcement of the "Truman Doctrine" in 1947—with the strategic significance of that country very much in mind, not to mention the inevitability of both needs and demands for American assistance abroad. Geographically, of course, Turkey is a key bastion in any defense that may be required against further Communist encroachment. Yet its economic and political organization, and the intellectual temper of its people, are very different from what we are accustomed to here in the United States. All of which makes a clear understanding of Turkey and the Turks by the American people an absolute must for effective American aid.

Mr. Thornburg and his associates agreed with the Fund at the outset of their quest on what was meant by "American aid." It was clearly understood in advance that the only kind of aid to be considered in this study would be that which would raise the standard of living and increase the independence of the Turkish people. All agreed that not only Turkey's interests but America's, and the interests of the world as well, are best served by a Turkey that is both prosperous and free.

One further word about the Fund's intentions in this study. It is the first time that the Fund has made an essentially eco-

conomic survey of a foreign country. The Fund recently published *Report on the Greeks*, but that volume was focused on the Greek people—their make-up, environment, conditions of life, education and political groupings and ideas. This study of Turkey, and a similar study of Brazil soon to be published, however, have been designed as pilot projects in an effort to produce the intellectual raw material out of which a more effective U. S. foreign economic policy may be fashioned—not only for the U. S. government but for private business as well.

Messrs. Thornburg and Spry brought exceptional talents and experience to bear on their task for the Fund. As Chairman for many years of the Board of Engineers of the Standard Oil Company of California, and as Vice-President in charge of its Middle and Far East subsidiaries, Mr. Thornburg became intimately acquainted with the practical problems of pioneering industrial development abroad, and as Petroleum Adviser to the U. S. Department of State, he came to grips with the issues of foreign economic policy from the public point of view. Mr. Spry was Personal Assistant to Sir Stafford Cripps during the recent war and accompanied him on the mission to India. A Canadian by birth, he has also been active in Canadian politics and is co-author of *Social Planning in Canada*. At present he is engaged in international trade.

The Fund deeply appreciates the service which Mr. Thornburg and his associates have so well performed in making the study on which this volume is based, and that of George Soule in preparing so lucid a text for publication.

EVANS CLARK, *Executive Director*  
*The Twentieth Century Fund*

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## AUTHOR'S PREFACE

THE OUTSTANDING CHARACTERISTIC of the Turkish scene is its dynamism. Turkey is neither a war-worn country nor a decaying economy. When Atatürk pulled the throttle wide open after the Republic was founded in 1923, he unloosed regenerative forces. After twenty-six years of the new social, political and economic experiences into which Turkey's headlong transformation has plunged her, the tempo has quickened. Turkey today is definitely on its way. The question is, Which way?

This rapid development largely determines the method which must be adopted in appraising the situation, if we are to learn how American resources may be transfused into the Turkish system to provide what the Turks' own virility and enthusiasm cannot provide for themselves. It would be futile to take a static view of so kaleidoscopic a scene. In Turkey, we see a sequence of rapid pictures which cannot be arrested for study without producing an unreal effect, like a diver suspended in mid-air. Instead, there is a trajectory to be plotted. What forces are impelling and what ideas are guiding the course of this young Republic? What counterforces are at work? What obstacles must be overcome?

Revolutionary dynamism does not pervade the entire Turkish economy. In certain directions, it is blocked by a singular and contradictory immobility. Not yet affected by the solvent of the Revolution lies the great mass of the primitive Turkish economy, almost as it lay in the long years of Ottoman oppression. Why does a popular revolution, after nearly a quarter century of glamorous successes, leave most of the people—perhaps 18 out of the 20 million—almost where they were before? Nothing in Atatürk's declaration of principles prepares us for the concept that "the State is superior to the Individual," or for the spectacle of a glorious streamlined Turkish state resting on the bowed necks of the Turkish peasantry.

Such a vision we associate only with the totalitarian regimes

which swept the world into war in 1939. Surely some other explanation must be found here, despite occasional reminiscent and alarming symptoms of rule of, but not by, the people. Apparently the revolutionary spirit, once it had created a sufficient environment to occupy it fully with new problems, shot up vertically, eager to develop the unending possibilities which each new undertaking disclosed. But while factory followed factory as one five-year plan rose on top of another, the line circumscribing this zone of intense development began more and more sharply to define two Turkeys—the Turkey of the jet plane, and the Turkey of the oxcart. And so, while we plot the trajectory of the one, we must also trace the chains which bind the other. Not until we have seen the relation between the two can we know where our help is really needed.

In this study, two assumptions are made: first, that the government of Turkey and the people themselves wish American aid in effective forms, and therefore that so far as they can, they will bring about such internal conditions as will make that aid possible; second, that the national aims of Turkey, which are to be furthered by American participation, are compatible with our own national interests and beliefs. This second assumption is not intended to suggest that the adoption of American practices, either political or economic, is prerequisite to American aid. Turkey must adopt methods suited to its own conditions—even though not necessarily to ours—if it wishes to achieve the same type of individual and national freedom at which our own national policy is aimed. If Turkey does not wish freedom, American aid will not be useful either to the Turks or to American policy.

To discover opportunities for assistance, it is necessary to explore the Turkish economy for its weaknesses and deficiencies. Consequently, a study with that aim must be analytical and critical, and its conclusions must, where possible, point to accessible remedies. This book is not intended to be a celebration of the new Turkey's great achievements, which are described with much more detail in other volumes.

To avoid misinterpretations, it was agreed at the outset of the survey that, before the survey team left the country, its findings

would be reviewed in detail with the Ministers and other responsible government officials, and that our main conclusions and particularly our criticisms would be disclosed fully to them. This was done faithfully, both orally and in writing. With the exception of the conclusions and recommendations of the two final chapters, which were evolved after later study of the material, it is believed that this book contains no expression of opinion, and certainly no important criticism, which was not discussed frankly with the Ministers or other responsible officials directly concerned. With the same purpose in mind, the survey team reviewed its principal findings—excepting those which explicitly criticized certain political aspects of the economic administration—at a meeting of press representatives which was arranged by the Government Press Bureau.

Both the official and the press conferences resulted in wide discussion of the survey and the general tenor of the forthcoming report. Comments of some length appeared, both as editorials and as published articles, in newspapers and magazines. In general, these were commendatory. Some, while not denying the fairness of the criticism, deplored the circumstance which gave rise to it. The severest critics of the report, as disclosed, took the position only that it failed to tell also of the great accomplishments of the Turks since the Revolution. The author, of course, would be the first to concede that a much longer book than this one could have been written on Turkish achievements, had that been our subject.

One prominent Turkish patriot, an ex-Minister and now an important figure in private business, said to the writer: "Your report brings to mind one of our Turkish proverbs, which says, 'Our enemies make us laugh; our friends make us cry!'"

To conduct a survey with these ideas in mind meant many discussions with men both in government and outside it, to learn how Turkey is thinking. It meant also close examination, on the ground, to distinguish between dreams and realities. This involved thousands of miles of travel, mostly by jeep, and inspection of many factories, mines and farming regions.

Adequate acknowledgment of the assistance rendered to our team in conducting this survey is almost impossible to make. It

is perhaps enough to point out that without the fullest cooperation of the many government officials who put themselves and their knowledge freely at our disposal throughout our work, it would have been impossible even to attempt a realistic analysis of the Turkish economy.

Two men, nevertheless, must be mentioned particularly. His Excellency Dr. Nadim Ilken, Director General of the Government Press Bureau (Department of Public Information, or propaganda in its best sense), a distinguished scholar and ex-diplomat, gave invaluable aid in facilitating our work. His own conduct was unimpeachable evidence that there is no "iron curtain" in Turkey. His assistant, Nejat Sonmez, a graduate of Columbia University, was assigned full time to aid us and to interpret for us both the language and the lives of his people.

The many others who gave us long hours in discussion or who accompanied us over plains and mountains and through mines and factories will know of our grateful appreciation. They, at least, will know also that what we saw and have reported as Turkey's deficiencies were to us, first of all, opportunities for help through America's resources.

Finally, I must give full credit to Mr. Graham Spry, who, as Research Associate, is responsible for material on historical background, agriculture, foreign trade, education and public health as well as for much valuable assistance in other divisions of the study. To Lowell Thomas, Jr., a member of our team during most of the field work, is due credit for examination into Turkish social life, both urban and rural, and into the media through which the Turkish population receives its information on national and world affairs.

In fairness to Mr. Spry, as well as to the many Turks whose cooperation was acknowledged earlier, I accept full responsibility for the critical tone and the broad character of the report and for the conclusions and recommendations explicitly expressed in Chapters 8 and 9.

The authors alone cannot bring to the task all that it requires. Our observations, supplemented by what we have learned from the many Turks who collaborated with us in this study, may indicate the most promising opportunities for joint effort, and

some directions in which new efforts will be fruitful. But those on both sides who command the facilities and resources and possess some power of control over conditions must carry on from here and find the real answers. .

MAX WESTON THORNBURG

UMM A'SABAAN ISLAND  
PERSIAN GULF  
FEBRUARY 1, 1949





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TURKEY  
An Economic Appraisal



## Chapter 1

### THE LAND AND THE PEOPLE

THE WESTERN VISITOR to modern Turkey is likely to be unprepared for what he finds. His mental images of the land and the people are colored by such words as "Oriental" or "Middle East"; he has absorbed romantic stories of mosque and muezzin, of harem, veiled ladies, fretwork balconies and magic carpets. History has told him of the "Terrible Turk" who under the Ottoman Empire ruled large parts of eastern Europe and the Holy Land, and finally was driven back into Asia Minor during the nineteenth century.

#### *A Nation of Contrasts*

The traveler arriving at one of the few important ports like Istanbul (Constantinople) will, to be sure, see minarets and mosques—but below them are the glistening new buildings; modern architecture jostles the heavy stone of ancient fortifications. He will find factories, power plants, railway stations, department stores, night clubs and restaurants, beauty parlors, universities, bookshops, theaters. He will also come to narrow streets lined with ancient bazaars where the innumerable products of immemorial handicrafts are offered for sale. American motor cars dash by villagers on donkeys; a young Turkish girl who in dress and carriage would not be noticeable on Fifth Avenue strides along past an old woman in baggy trousers, with a veil below her eyes.

In Ankara, the present capital, an ancient citadel which crowns the heights and overlooks the surrounding plains has been continuously occupied by man for perhaps 5,000 years; it is believed to date from the times of the Hittites, about 3000 B.C. Below it, the atmosphere is almost that of a



California boom town, with acres of government buildings still under construction, broad new boulevards shaded by trees and bordered with fresh white houses. The clatter of donkeys' hooves is interrupted by motor horns. Newly planted gardens, with their pepper trees, lilacs, mimosa and honeysuckle, fill the air of spring with their perfume.

No contrast within the cities is more sharp than that between town and country. Turkey is four fifths rural and agricultural; her 40,000 villages have scarcely changed for a thousand years. Here one sees the oxcart with the spokeless wheel portrayed in Sumerian sculpture of 3000 B.C., the ancient wooden plow, the huts often barely visible and nestled together in some location where their owners could be safe from surprise attack through the centuries. Little but the ox or the donkey would serve to carry the peasants or their goods, since there are no rural roads of consequence and many of the so-called roads are mere trails.

The impression one carries away from Turkey is that of a thin layer of modernity imported from abroad and imposed from above, with great will and vigor, upon a population the larger part of which is still steeped in medieval or even ancient ways of life. The contrasts are those brought about by a heroic struggle of the Republic during its twenty-six years of life to mold the Turkish people into a modern state, capable of holding its own among other nations. Something has been done in the course of this revolution; much more remains to be done.

### *The Shape and Nature of the Land*

Turkey as it exists today is a rectangle, approximately 900 miles long from east to west and a little over 300 miles wide from north to south. Its 296,380 square miles comprise an area about one tenth larger than the State of Texas. The greater part of this rectangle consists of the Anatolian Peninsula, with the Black Sea on the north, the Aegean on the west and the eastern end of the Mediterranean along half

of the southern boundary. Across the northwest corner, the Bosphorus, the Sea of Marmara and the Dardanelles connect the Black Sea with the Aegean. Northwest of this important waterway Turkey includes a small slice of Europe—Turkish Thrace—bordering Greece and Bulgaria. On the European side of the Bosphorus, Istanbul, capital of the Sultans, is located.

At the eastern end of this peninsula, Turkey is bounded by the Soviet Union and Iran. Batum, the Black Sea port of Soviet Georgia, is only a few miles from the boundary, and Erivan, capital of Soviet Armenia, is not much farther away from Turkish soil. After dark its lights are clearly seen from the Turkish bank of the Aras River. The southern land boundary, east of the Mediterranean, is occupied by Syria and Lebanon and by Iraq, with its Mosul oil fields.

The entire center of Turkey is a steppe or plateau, averaging about 3,000 feet above sea level. This plateau is separated from the Black Sea on the north by the Pontic Mountains, on the littoral of which there is only a narrow coastal plain with few natural harbors. On the south, the Taurus Mountains similarly lie close to the Mediterranean. On the west, toward the Aegean, the coastal plain is wider and more indented. Numerous islands lie offshore. Toward the east, the elevations increase until near the boundaries of Russia one approaches the Armenian Mountains, behind which lies the mighty Caucasus Range. The plateau itself is not a single plain, but is broken by many mountains, hills and gorges.

Turkey lies almost entirely between the 36th and the 42nd parallels, about the same latitude as Greece, southern Italy, Spain, and the region of the United States between Richmond, Virginia, and New York City.

### *Climate, Rainfall and Water*

The coastal plains along the Mediterranean and the Aegean have the warmest climate, of the sort usually described as Mediterranean. Here grow olives, grapes, tobacco,

figs, oranges, cotton. The winters here are mild, though occasionally cold winds blow down off the plateau. The Black Sea Coast is somewhat cooler, though at its eastern end tea is grown. The plateau of the center has a climate similar to that of Kansas or Nebraska—hot summers and cold winters—with cold increasing as one approaches the higher altitudes. The mean temperature of winter is just above freezing, and snow may lie deep in the valleys of eastern Anatolia for four months.

Rainfall varies largely with the character of the terrain. In the south and west it comes in the winter; the summers are dry. On the Mediterranean, Aegean and western Black Sea coasts precipitation varies from 20 to 40 inches. On the eastern Black Sea littoral it is distributed throughout the year, and toward the east rises to nearly 100 inches. In the interior, which is cut off from the moist sea winds by mountains, precipitation may be as little as 10 inches. There are few trees and vegetation is sparse on most of the plateau; at its center lies a salt desert.

Since the precipitation is so light in the interior of the peninsula, the lakes are often permeated with salt or other chemicals, so that they are of little use for water supply or irrigation; and there are no important navigable river systems. The Euphrates and the Tigris both rise in Turkey, the first flowing south into Syria and the second into Iraq. The Kizil (Halys) and the Sakarya flow northward into the Black Sea, and others generally westward or southward into the Aegean and the Mediterranean. Many of the rivers did not cut their courses, but follow depressions or gorges created by other types of geological action. They are not navigable, and are important mainly for their valleys, which constitute winding routes into the rugged interior. They offer some opportunity for irrigation and somewhat less for water power.

*Where the People Live*

Turkey's population of nearly 20 million averages about 67 per square mile, as against 140 per square mile in Greece and 150 in Bulgaria—the United States, as a whole, averages about 44. The greater part of this population lives near the seacoasts, where agriculture and trading are more flourishing than elsewhere. Here the density varies from 75 to 100 per square mile. Inland from the Aegean and the Mediterranean lies a crescent-shaped strip with a density ranging from 25 to 75, and in the dry interior and eastern regions the population varies from 1 to 25 per square mile.

Where the population is heaviest it is nevertheless largely agricultural. Istanbul is the only great city, lying as it does on a perfect harbor, at a crossroads of water traffic between the Black Sea and the Mediterranean and of land traffic between Europe and Asia. Izmir, formerly called Smyrna, is an ancient port from which a large part of Turkey's varied export crops are dispatched. Much of Turkey's domestic commerce follows the seacoast of this western region. The people once were great traders and seafarers in the wooden Greek caiques, though the Turkish merchant marine is not now often seen in foreign ports. In the neighboring valleys and hillsides are grown, by intensive agriculture, the tobacco, raisins and other specialized crops for which the country is noted.

Ankara, the capital, is situated in the interior and derives its main importance and the greater part of its population from the fact that it is the seat of government. Most of the other towns and cities are chiefly of local significance, since land transportation has been so backward in Turkey that none could act as a center for a large region. Only 20 per cent of the population is urban.

On the central plateau the thinly scattered inhabitants raise mainly wheat and other grain by dry farming, and also tend herds of sheep and goats. In parts of the moun-

tainous eastern regions some of the people have been nomadic for centuries.

There are scattered industrial establishments, most of them created by the state since 1927, and a few mining operations, notably in the extensive coal basin along the Black Sea. Many valuable mineral deposits exist in Turkey, some of which have been known for a long time but few of which have been extensively exploited.

### *The People Themselves*

The inhabitants of Turkey are Turks not by race but by language and nationality. Even in the earliest times there was a great mixture of peoples in this region, including Hittites, Cappadocians, Phrygians and Ionians. The ancient Greeks were there, as we learn from Homer and his story of the siege of Troy and from Xenophon's history of his famous march. Greek philosophy began at Miletus, now on Turkish soil; and Rhodes, where the Colossus stood, has been a Turkish island. Paul of Tarsus was born in Cilicia, and much of his missionary work was done in Anatolia. Constantinople was founded by the Emperor Constantine; it soon became the center of the Roman Empire and was the seat of Christianity for centuries as well. Later, Slavs and other Europeans infiltrated the population.

The Ottoman Turks, who conquered the region from Byzantium, were horsemen originally from the steppes of Central Asia. It is likely, according to modern anthropology, that they were Turkomans—tall whites with long face, high head and brunet complexion. Relatively few in number, they married the women of the conquered population and soon became closely intermingled with the native Anatolian strains. The result was a mixture which, racially speaking, is essentially European.

What the Turks did impose on the country was their language and Islam, the religion of Mohammed. The soil continued to be tilled as from immemorial times and the

peasants carried on the agricultural ways of the ancient Anatolians. The Greeks conducted the trading which they had developed for centuries. But the original Turkish culture had not been one either of settled farming or of commerce; it had depended on nomadic herding and drove westward by successive waves in search of new grazing land. The proud and conquering Turkish Moslems eventually extended the Ottoman Empire throughout Asia Minor, eastern Europe and northern Africa, accustoming the conquered peoples to the Moslem tradition of central authority and exploitation.

Only three important national minorities have kept their identity within the boundaries of modern Turkey and all of them have been so ruthlessly repressed or scattered that they no longer constitute a problem to the national state. The Armenians, who clung to the Christian religion and their own language, now number about 60,000. There are still about 108,000 whose mother tongue is Greek; they are entirely in the west. The Kurdish-speaking tribesmen lead the life of seminomadic herdsmen on the borders of Mesopotamia (the region between the Euphrates and the Tigris rivers, now ruled by Iraq). There are other Kurds in Iraq and Iran, but although Russia has championed their nationalistic aspirations, the million and a half Kurds in Turkey are being forcibly assimilated.

Of the numerous other religious or linguistic minorities, none is large or cohesive enough seriously to challenge Turkish rule.

In general the people of Turkey represent many physical types, mingled as they might be in Chicago or New York. Those who have had access to higher education cannot be distinguished from Americans or Europeans either by their appearance or by their cultural level. The main difference which distinguishes the masses of the people from those of the West, aside from Turkish environmental backwardness, seems to be a lack of that peculiar mixture of aspiration for individual improvement and confidence in social progress

which has characterized the Western democracies. Approximately 60 per cent of the people still cannot read or write, and illiteracy is especially prevalent among the peasants, in spite of the considerable educational program of the Turkish Republic. Centuries of stagnation and rule from above, coupled with absence of encouragement of or opportunity for advancement in the arts of peace, cannot be outlived within a generation, however great the energies of the country's leadership.

### *Strategic Position*

Turkey's position across both the water route from Russia to the Mediterranean and the land route from Europe to Asia or Africa has caused it to be the pathway of many invasions and migrations, the seat of several empires and a pawn in the strategy of European powers. It is this position, rather than any developed riches of the land itself, that has led to its chief role in history. From the Anatolian Peninsula as a center, a great power can occupy interior lines for expansion into Europe, Asia or Africa and can control the eastern Mediterranean. A small or weak power in this location lies in the "crash zone" between antagonists on the outside, and must either seek allies or preserve a delicate balance of neutrality in order to maintain its integrity.

Turkey was occupied in ancient times by Persia; Alexander the Great swept across it in the fourth century B.C.; the Roman Empire had to control it in order to establish sea power in the Mediterranean. The Greek Empire of Byzantium ruled from Constantinople for hundreds of years in medieval times; this regime was followed by that of the Ottoman Turks. Napoleon in his war against England moved against her in the Middle East; the Russian Empire fought the Turks; Hohenzollern Germany conceived the imperialist advantage of a Berlin-Baghdad railway across the Anatolian Peninsula. Hitler, too, was preparing to move in this direction.

It should not, however, be inferred from this historical tradition that the Anatolian Peninsula has remained an important trade route, as it was in ancient and medieval times. Sea traffic from and to the Black Sea does pass its tip, and Russia regards this passage a prime necessity as an outlet to warm water, but Black Sea trade has not been of great international importance. Land passage across the rugged interior, which declined after the discovery of the ocean route to India, is not facilitated by good roads or efficient railroads. Passes are few and difficult. There is virtually no all-season system of land transport for modern vehicles.

### *Rise and Decline of the Ottoman Empire*

By the fourteenth century the Turks, who had infiltrated Anatolia in successive waves of migration, had permeated this section of the decaying Byzantine Empire, and had crossed the Dardanelles into Europe. In two more centuries they had become masters of the Middle East. Constantinople fell to them in 1453, after a thousand years of imperial Christian rule. The conquerors continued their expansion at all points of the compass, and by the end of the sixteenth century the Ottoman Empire embraced the Balkan Peninsula, parts of Hungary and Poland, the shores of Russia on the Black Sea, Persia, Arabia, Egypt and the Mediterranean coast of Africa. Under Sulaiman the Magnificent, the Turks were the greatest power in Europe, Africa and western Asia. In the nineteenth century Turkey also, through the Caliphate, claimed to be the spiritual leader of the Moslems.

Though the Turks were thus successful fighters, they were empire builders only in the old Oriental tradition. They did little to arouse or hold the loyalty of conquered populations, who felt the hand of the master largely in tax collection and sporadically enforced edicts. Corruption and favoritism grew among the rulers. Nationalism of the subject peoples flourished, while fears of conquest on the part of those outside the boundaries of the Empire were intensified.



Wars and revolts caused the Ottoman regime to start crumbling in the seventeenth century. The process was hastened in the eighteenth century and by the end of the nineteenth was well on its way to completion. For example, Russia captured the Crimea; Britain detached Egypt; the Greek war of liberation of 1821 was succeeded by others until not only Greece but the Balkans were freed. The Empire of the Sultans remained incapable of developing the resources of lands or people.

The Empire would probably have collapsed before it did if rivalries among the more vigorous European powers had not kept it alive for strategic purposes. A revolutionary movement within Turkey itself, headed by the "Young Turks," gained control of the Sultanate. In 1914 they made Turkey an ally of Germany in World War I. When the Central Powers collapsed there was nothing left upon which they could rely. All the outlying imperial territories had come under the control of Allied armies, Constantinople was occupied, the government was under Allied control and Anatolia itself was threatened.

### *Economic Relations With the West*

Turkish life had been sustained by agriculture and primitive handicrafts. Exports consisted mainly of special crops like tobacco and nuts, plus a few handmade products. Though the nineteenth century marked the rapid growth of industrialism in western Europe, no such development occurred in Turkey. Imports of Western machine products invaded Turkish markets and ruined many of the old handicraft occupations. As a nation Turkey was living beyond her means, and incurred a long-continued adverse balance of trade. This deficit was financed by foreign loans, which the industrial nations extended partly for strategic reasons and partly to finance their profitable export trade. The luxurious and corrupt governing class was only too glad to accept them.

As a result of both political and economic weakness, Turkey became known as "the sick man of Europe."

But repayment lagged. Turkey had deprived herself of the right to impose protective tariffs and had accepted alien administration of her foreign debts by the capitulations, agreements through which over the centuries she had granted extraterritorial rights to foreign countries. Before 1914, the external debt had risen as high as \$716 million, of which France held 60 per cent, Germany 20 per cent and Britain 15 per cent. It was controlled by a "Council of Administration of the Ottoman Public Debt," of which the President was British or French, in alternate years. This Council collected the revenues for the debt service. Consequently its powers, exercised through taxation, extended into every corner of the Empire.

During World War I commerce and payments were interrupted with all western nations except the Central Powers. Soon after its end came the renascence of Turkey and a thorough revision of its relations with the world under the Republic founded by Mustafa Kemâl, later known as Atatürk.

## Chapter 2

### THE TURKISH REVOLUTION

#### THE WAR FOR TURKEY

MODERN TURKEY was established by the revolution led by Atatürk—Mustafa Kemâl—immediately after World War I. This was no mere substitution of one ruler for another. It altered the whole direction of Turkish life. The Turkish Revolution externally was a war against foreign conquest; internally it was political and economic. It substituted a republic for an absolute monarchy; it altered religious authority, centuries-old customs and even the written language.

It is impossible to understand the economic changes without appreciating that they did not spring primarily from economic motives. The Revolution was not an uprising of a middle class against feudalism, or of the poor against the rich: the economic program was incidental to a heroic effort to save and revive the nation. Perhaps it would be more accurate to say that it was an effort to save a people and to *create* a nation as an instrument for doing so, since the Empire of the Sultans had never absorbed the spirit of nationalism characteristic of western Europe. No other Middle Eastern people has accomplished so much so rapidly as the Turks since their Revolution.

#### *Threatened Partition*

The Ottoman Empire, moribund and corrupt, was on the verge of dissolution when World War I ended in 1918. The members of the victorious Entente were circling above their prey like vultures. They had agreed on its dismemberment by secret treaties signed in 1916. Tsarist Russia was to get

the Dardanelles, Constantinople and a part of Armenia. Britain was awarded a protectorate of Palestine and of Mesopotamia—which later became Iraq—with the Mosul oil fields. The French zone in Syria was to be extended, and France was to have special rights in the Adana region, stretching far into southern and central Anatolia, the very heart of Turkey. Italy was granted similar rights in the Dodecanese Islands and on the peninsula bordering the Mediterranean, to which Greece also laid claim. Supplementary economic concessions were recognized. The United States subsequently insisted on an independent republic of Armenia. If the full program had been carried out, not only would Turkey have lost outlying regions, as she did (Iraq, Syria, Lebanon, Palestine and the Arabian peninsula being severed from her), but two thirds of Anatolia itself would have disappeared from the national territory, and Turkish subordination to the victors would have been complete.

### *The Nationalist Mobilization*

For some years there had been a reform movement in Turkey, stimulated by the "Young Turks," who were resolved to regenerate the country by adopting Western ideas. Defeat in war and the nerveless collapse of the imperial government redoubled patriotic ardor among a few leaders. Though Allied troops occupied parts of Turkey, the peoples and armies of the nations concerned eventually became reluctant to fight a new war to impose a conqueror's terms on the militant Turkish Nationalists. In the end, the Turks had to conduct hostilities only against the Greeks, who backed their claims with a resurgent nationalism of their own.

On May 17, 1919 an "Allied" army, consisting entirely of Greeks, landed at Smyrna (now Izmir) under the guns of a fleet of British, French, American and Greek warships under British command. On the same day Atatürk, a fair-skinned, blue-eyed, red-haired Turk from Macedonia, and a vigorous Nationalist, was appointed, through a stupid

blunder of the Sultan's regime and the Allied control, inspector of the Third Turkish Army. His assignment was to demobilize the Turkish military forces; instead, he rallied the Nationalist movement. He proceeded from Constantinople, which was under Allied occupation, to Samsun, a Black Sea port in northern Anatolia. Too late the Allies discovered their mistake and attempted to recall him, but he was beyond their grasp.

A series of congresses strengthened the Turkish resistance; Nationalist ardor flamed in the face of imminent disaster. At Sivas, a sort of Turkish Declaration of Independence was drawn up, called the National Pact. In the autumn elections the Nationalists won a majority. In January 1920 a "National Assembly," meeting at Constantinople (Istanbul), endorsed the National Pact, and the Allies deported its leaders. But Atatürk had remained in the interior; he was now the only prominent Nationalist at liberty. Under his leadership the National Assembly met at Ankara. On April 23, 1920 it declared that the Sultan at Constantinople was a prisoner of the Allies and asserted that all governmental power rested in itself as a representative of the general will. On the next day Atatürk was elected President of the Assembly.

### *The Enemies Subdued*

Allied occupation troops were in Constantinople, Cilicia, Antalya, Izmir and the southeast. Ringed by these forces, the Ankara Turks were threatened also by uprisings of the Armenians and Kurds in the eastern interior. Atatürk first led his armies against these internal revolts, slaughtering many Armenians and dispersing the Kurdish tribesmen. Meanwhile, the new Soviet government had denounced the secret treaties of 1916 and refused the annexations granted to Russia under them. On August 10, 1920 the other Allies signed with the old Ottoman regime the Treaty of Sèvres, which confirmed the partition of Turkey. Two weeks later, the new Ankara government reached an accord with Moscow.



TURKEY'S FUTURE is symbolized by the sturdy, bright-eyed face of this very young Turk being held aloft by Max W. Thornburg, Research Director of the Twentieth Century Fund's survey.



In June 1920 the Greeks had crossed the line of demarcation between their army in Izmir and the Turks, and had advanced northeastward to Bursa. They had also invaded Turkish Thrace on the European continent. The Ankara Assembly during the summer established the Turkish Republic and elected Atatürk its President. Under him, in January 1921, the Turks turned on the Greeks threatening Anatolia and defeated them. They inflicted another defeat at the same place in March. The Greeks were then reinforced and continued their advance. In August they attacked the Turkish position in front of Ankara. For twenty-two days the battle raged without a break-through; the Greeks then broke off the engagement.

Atatürk spent the next year rebuilding his army. In August 1922 he fell on the Greeks and early in September drove them back into the sea. He then turned against the Allied garrison at Çanakkale on the Dardanelles. The French and Italians, not desiring a war against the Nationalists, at once withdrew their forces. The British, remaining alone and outnumbered, dared not resist. Public opinion in England had become hostile to its government's Turkish policy. The British commander agreed to an armistice on October 11, 1922. The Treaty of Lausanne, between the Western powers and the Ankara government, signed on July 23, 1923, secured the territorial integrity and independence of the Turkish Republic. Atatürk had become the national hero, and his followers set about their task of building a new and modern state, imitating the West in order to be strong enough to resist any invader in the future.

#### BEGINNINGS OF THE TURKISH REPUBLIC

The founders of the Republic followed Western models in their Constitution and laws. But representative democracy in the Western sense could not, for the time being, prevail because of the lack of the essential bases for it in Turkish experience or culture.



In form, the government is a parliamentary republic. It has a unicameral legislature—the National Assembly—elected by electors who are chosen by popular suffrage. The Assembly elects the President of the Republic. The President appoints the Premier from the membership of the Assembly; the Premier selects his Cabinet. Theoretically, therefore, the Assembly embodies both legislative and executive power. There is an independent judiciary, and the Constitution is subject to amendment. Suffrage is universal (now including women). Civil rights of individual citizens, such as equality before the law, are guaranteed. Contrary to ancient practice, church and state have been separated by the abolition of the Caliphate, and Oriental requirements such as the veiling of women have been abolished.

Inhabitants of Turkey had been subject for centuries to centralized, authoritarian rule—in so far as the central government could extend its power over so loosely organized and primitive a society. The only approach to self-government had existed in small, isolated villages, and even this was limited by the intervention of the tax-gatherer and the local representatives of the Sultan. The majority of the population was illiterate. Means of travel and communication were so slender that instead of one Turkey, there were a hundred—or a thousand—little Turkeys. This situation could not suddenly be abolished. The Revolution was not the political expression of an emerging change in economic and social structure like the revolutions against absolutism in the West.

The great majority of the Turkish population—the peasants—took no part in the Revolution, except as some of them fought in the armies of Atatürk. Atatürk recruited his forces mainly from the relatively small ruling class—the civil and military bureaucracies and the large landowners who constituted the educated minorities of western Anatolia, all inter-related and belonging to established families. In seizing power, they merely had to step into the vacuum left by the

discredited Sultanate. Aside from expelling the foreign invader, no other immediate changes were accomplished, and the ambition to modernize Turkey was far from including any design for a genuine social revolution. The peasants have been left substantially in the same economic and social status as in past centuries. Reforms were to be, and have been, handed down from above.

### *The Real Government*

The real government of the nation, therefore, has been in the hands of those who led the Revolution and established the Republic, organized in a close-knit party under the leadership of a single man. This party, known as the People's Republican Party, has dominated the Assembly, its legislation and its executive functions. The founders of the state looked forward to a two-party system. A rival party has in fact been formed—the Democratic Party—and has recently acquired substantial power. But the development of Turkey from 1924 to date has been the result of a will imposed from above—a dynamic and patriotic will, to be sure, in contrast to the grasping corruption of the Sultans. Democracy from the “grass roots,” almost nonexistent at the beginning, has grown but slowly. The issuance and acceptance of official edicts have remained second nature to both rulers and ruled.

In spite of the large part played by the state in economic activity, and the adoption of successive “five-year plans,” there is no important resemblance between the government of Turkey and that of Soviet Russia. The leaders of the People's Republican Party are not Communists and do not adhere to a Marxist philosophy. They do not aspire to establish a workers' society. Instead of seeking an international revolution, they are ardent nationalists. They wish above all to make Turkey a strong, modern state, and in order to do so they have sought to follow models of more advanced nations.

The party members, in turn, do not constitute, as in the

Russian Communist Party, a rank and file extending to key positions in every important activity and locality of the nation, ready to carry out in the field the policies centrally decided upon. The reliance of the party for executing policies is upon state administrative machinery, composed largely of its own members, to a far greater extent than upon a widespread and disciplined extralegal organization; whereas in Russia the party members who hold no office are almost more important than the government.

### *The Economy at the Beginning*

The Turkish economy inherited by the Republic had not undergone a major change for many centuries. Four fifths of the people made their living directly or indirectly from agriculture. Their methods were primitive. Most of the peasants sustained themselves from their own produce, and the bulk of trade in food crops was confined to limited localities. The city and town populations could be fed from the surplus of the immediately surrounding country itself. Railroads were few and inefficient; even the best roads were for the most part adapted to the oxcart rather than the motor truck, others were mere trails. Such internal transport as was active was by sea, around the coast on the perimeter of the peninsula.

Turkish manufactures were largely a product of handicrafts. The craftsmen had suffered from the Industrial Revolution of western Europe, combined with the free trade enforced by the capitulations. Most of the machine-made goods used by Turks came from abroad. Exports to pay for these goods consisted largely of specialized agricultural products grown near the coast, like tobacco, nuts, raisins, figs, and a few handicraft articles for which machine industry could offer no adequate substitute, such as rugs.

A strong feeling among Nationalists in favor of national self-sufficiency springs in large part from this situation. A

report of the Turkish Ministry of the Interior in 1934 stated feelingly:

At a time when the doors of the customs houses lay wide open, the silken textures imported from Europe laid waste the mulberry groves of Bilecik. . . . In Scutari, of 600 hand looms in 1821 there were only 40 left. Likewise of 2000 hand looms at work in Tirnova about 1812, scarcely 100 survived. . . . The degradation conspicuous in textiles affected other classes of industry, and there was little upon which to build the hope that they might one day come to life. Ever since, Turkey has ranked among the producers of raw materials. . . . An open market for the products of western industries, Turkey was doomed to become a sort of colony.

Foreign capital had been invested in Turkey, but it was employed not so much to develop the country as to extract for foreign use whatever riches were readily obtainable, without building up competition for the exporters of the investing nations. Foreigners held concessions for mining of coal and other minerals, for railroads and electric utilities. But these enterprises were for the most part inefficiently operated, adopted the slow pace of the country itself, exploited the low standards of living of the population and exported their profits to the foreign investors. Turkey had accumulated a large foreign national debt and was virtually bankrupt. By the capitulations she had agreed to foreign control over her internal revenues and other sources of income so that the debt might be serviced. After the establishment of the Republic, the capitulations were abolished and the foreign debt was scaled down.

### *Internal Trade*

Internal trade was largely in the hands of peddlers or small merchants in the bazaars characteristic of the East. Turkey, because of her geographical position, has often been spoken of as the "crossroads of the world," but in terms of international trade this was true only in a limited sense. The obstacles to transport across the peninsula from east to west or the reverse had kept the exchange of goods in these direc-

tions to a mere trickle; the Suez route was a thousand times more important. The straits, of course, offered an essential pathway for ships between the Black Sea and the Mediterranean, and Istanbul as a consequence extracted profit from this trade, but the economic benefit did not extend to the general population.

Much of the private business had been in the hands of Greeks and Armenians—minorities which the Turkish Nationalists did their best to reduce in numbers and importance. Indeed, thousands of Greeks were returned to their own country by an exchange of populations arranged by the League of Nations after the Greco-Turkish war. There remained a slender base indeed of experience and private capital out of which a modern industrial state might grow.

An economist or engineer from the West, analyzing the economic task of the new regime, might readily have come to the conclusion that the major objective at the beginning must be to increase the efficiency and productiveness of agriculture, in which so large a part of the population was engaged, first in order to improve the lives of the peasants themselves, and next to develop a surplus from which industry and commerce might be sustained. He would undoubtedly have concluded that essential to this purpose, as well as to serve the needs of a growing industry, must be a great program of road building, as well as of such railroads as could be afforded. Third in order would be the development of light machine industry and mining, to serve the more elementary needs of the population, and eventually to strengthen the nation in all the ways which industrialization carries in its train.

#### NATIONALIST ECONOMIC PROGRAM

As soon as the Republic was free to direct attention to internal reconstruction, Atatürk acted in economic affairs. In view of the backward condition of the country, he did not believe it sufficient to rely on spontaneous growth of a private economy.

An Agricultural Bank had existed long before the Revolution, but it had been limited to minor credit operations. Atatürk, who was keenly interested in agriculture and had set up a model farm on the outskirts of Ankara, greatly enlarged the activities of this bank. It paid special attention at the beginning to production and marketing of export staples, in order to obtain the foreign exchange necessary for buying the capital facilities to build up industry. It also organized agricultural cooperatives.

"Industrialization," declared Atatürk, "is one of our chief problems. We shall create every industry, great or small, for which there are in our land the economic conditions necessary to its work and development."

In 1924 he accordingly established the Ish Bank (Bank of Business) to organize and finance business undertakings. It was a privately owned company. He himself underwrote a substantial block of its shares; many of these were sold to others, and those which he kept were later turned over largely to the People's Party. The bank had, however, a semipublic character, since the Board of Directors was composed of Deputies in the National Assembly, so that it would be linked to governmental programs. The intention at the time was to foster private enterprise as a national policy. The charter and laws of the Ish Bank included among its functions general banking, the promotion of all kinds of works in the public interest, the production of any kind of goods, construction work and the establishment of companies for that purpose, all kinds of commercial and industrial transactions either for its own account or in partnership with private citizens or foreigners. In other words, it was one of those hybrid partnerships between private investment and public need known in Britain as a "chosen instrument," and its potential field of operations was exceedingly wide.

A law of April 19, 1925 set up also a purely state bank—the Industrial and Mining Bank of Turkey—to manage and finance state-owned industrial establishments. The fact that

this bank was thought necessary indicates clearly that though the Ish Bank, or Bank of Business, was expected to encourage private enterprise, there was an intention to develop nationally owned enterprises as well. Public undertakings were not, in this period, expected to replace private ones, but rather to supplement them. State aid or initiative were in some cases obviously necessary. The law establishing the Industrial and Mining Bank provided for subsidiary state-owned companies in specific industries and mining operations. This bank was authorized also to make private business loans and to participate in the ownership and management of commercial concerns which marketed its products. It had no jurisdiction over government-owned munitions plants.

### *Slow Progress in Early Period*

Until 1927 these three institutions—the Agricultural Bank, the Bank of Business and the Industrial and Mining Bank—were largely engaged in preparation for their functions; little actual advance in production was realized. In addition, obstacles to industrial development surviving from the old regime were sharply revealed. Restrictive laws, hampering measures for extracting public revenue from business operations, and, even more important, old habits of doing business and of thinking, obstructed progress. To help overcome these handicaps, the National Assembly passed in 1927 a Law for the Assistance of Industry. This made state lands available to business concerns at low prices, reduced taxes and freight charges, and exempted from import duties many kinds of material needed by essential projects. The first period of industrial development really should be dated from 1927; it lasted until a change in basic industrial policy took place in 1933.

Other measures to aid the program were taken during the first period. A statistical service was organized. Commercial policy was revised from time to time. Men with professional

training were released from the army to take part in industry. To improve the opportunities for these and other Turkish experts, restrictions were placed on the employment of foreigners in engineering and other specialized posts. Unfortunately, the men from the army gravitated to secure positions in the rapidly expanding governmental agencies rather than to the more hazardous private undertakings, and the Turks were deprived of much foreign experience which would have been especially valuable at this stage.

Between 1927 and 1933 the number of industrial organizations which qualified for aid under the industrial law of 1927 increased from 342 to 1,473. Some of these may have been in existence previously, though most of them were new. Their investment in 1927 is not known, but in 1933 it was reported as 63 million Turkish liras (\$35 million at the predevaluation rate of 1.82 TL to the dollar).<sup>1</sup> During this six-year period the number of industrial workers increased from 17,000 to 62,000.

Production increases during the period, as reported, were approximately (in tons):<sup>2</sup>

Cotton yarn *	1,000 to 7,000
Woolen textiles	500 to 3,000
Sugar	5,000 to 65,000
Leather	3,000 to 4,400
Cement	40,000 to 118,000

\* Piece goods in about the same proportion.

1. See Chapter 7 for a discussion of the value of the lira in terms of the U. S. dollar; also Appendix Table 1 for the *official* rates of exchange for the years 1923-1947.

Except where otherwise indicated, the *commercial* rate of 1.82 liras to the dollar (before devaluation in 1946) has been used in this survey to derive approximate dollar equivalents for lira figures prior to 1947. This "realistic" value was used rather than the official predevaluation rate of  $1.30 \pm$ , which in recent years carried a premium of 40 per cent on all exports and a slightly higher premium on imports.

On September 7, 1946 the official rate of exchange was devalued to 2.83 liras to the dollar. This rate has been used throughout the text when 1947 lira figures are converted to dollars.

2. Tons, unless otherwise indicated, are metric tons (2,204.6 pounds), roughly equivalent to long tons (2,240 pounds).



Many business failures occurred, the number and causes of which are not known, since no records were kept. But men with firsthand knowledge say that the reasons were not, as a rule, lack of capital, but inexperienced management and supervision, and absence of distributive channels. Industry could not be created merely by forced building of factories.

### *Second Period—Etatism*

The second period of industrialization, beginning in 1934 and extending to the present time, was marked by a shift in emphasis to governmental initiative, ownership and planning. The state, according to the 1934 Report on Industrialization of the Ministry of the Interior, "assumed the task of creating the key industries which, during the first period, private capital and initiative had been unable to organize. Thenceforward, it renounced the liberal and somewhat faltering attitude of neutral protector which had characterized the previous stage, and resolutely embarked on a program of State nationalism." This policy became known as "Etatism." Its chief aim, as announced by Prime Minister Ismet İnönü, was the rapid achievement of economic self-sufficiency for the nation.

The inauguration of Etatism coincided with important aid from the Soviet Union. In 1933 İnönü made an official visit to Moscow, the outcome of which was a comprehensive economic agreement between Turkey and the Soviet Union. Russia made Turkey a loan, without interest, equivalent to \$8 million (later increased to \$18 million). It was agreed that the money was to be used for the purchase of Russian machinery and material needed in the program of industrialization. Russia engaged to complete the delivery within four years, set up the establishments contemplated, work out plans for their operation, supply whatever technical assistance was necessary and train Turkish workmen to operate them. The loan was to be repaid by unspecified quantities

of Turkish products. It was a barter arrangement which by-passed problems of foreign exchange.

The most important part of the agreement was the stipulation that Russia was to assist Turkey in the preparation of a five-year plan to carry out her industrial program. Thus, Russian ideas and techniques of planning—which in the Soviet Union involved a bent toward almost universal state ownership—were to be transplanted to Turkey. This did not mean that the Turks were converted to Bolshevism. Far from it. In Turkey it was not and is not safe to be known as a Communist. A few Russians were called in to set up planning machinery in their capacity as technicians in the subject, just as numerous engineers from other countries were called in to set up factories or power plants or railroads. The Turks, it was thought, could then take over the machinery made to order, and operate it for their own objectives. The purpose—rapid acquisition of industrial equipment which would make Turkey self-sufficient—was thought to be almost identical with the leading objective of Soviet planning itself. To the Turks it did not seem that in order to operate that system successfully it would be necessary to take over as well the whole apparatus of Marxist philosophy, the Soviet type of state and the goals and slogans of a "proletarian culture."

### *The Five-Year Plans*

The Turks were, and are, rather vague about the detailed targets of their successive five-year plans. But the announcement of the first plan specified that consumer goods industries to be established were cotton, hemp, woolen goods, artificial silk, paper, glass and porcelain. Producer goods industries were to include the manufacture of iron; coke and coal by-products; production of copper and sulphur; chemical industries. Only copper and sulphur were to be developed for export. There is no hint here that certain fields were to be reserved for private enterprise because it might be better

able to develop them. The plan simply included everything that the government wished to develop first.

The chief agency for executing the plan was the Industrial and Mining Bank, reorganized and strengthened under the name of Sümer Bank. Three main functions were given it by its charter—first, to operate the plants already under the Industrial and Mining Bank and to administer the state interests in private enterprises; second, to plan, set up and manage all new governmental undertakings, except those which might be otherwise provided for by special legislation; third, so far as its capital permitted, to support or invest in any other business which might be to the economic advantage of the country. It was also instructed to train technical men who might be required, to do commercial banking and to plan for extension of state enterprise.

The criteria for choosing the businesses in which the bank was to invest are interesting. At the top of the list came those using home-produced materials and making goods of which the output was below the needs of consumers. Next were the establishments which used domestic surplus materials to make products, either for export or for the domestic market. Only third were ranked the industries making goods for which there was a large domestic demand but which had to be made out of imported materials, and then only if these materials might in time be produced within the country. Last of all came the industries using imported materials which could not be produced within the country, but making products which might be useful to the domestic population. These criteria evidently were intended to carry out the program of national self-sufficiency. No category was included of industries producing for export, except those using surplus domestic materials.

### *Sümer Bank's Accomplishments*

Sümer Bank set out in 1934 with a nominal capital of 20 million Turkish liras (\$11 million) and a few textile and

leather factories. Near the end of three successive five-year plans, its statement of June 1947 showed that it had a capital investment of 147 million Turkish liras (\$81 million) after writing off 61 million liras to depreciation, and a working capital, consisting chiefly of inventories, slightly larger than its capital investment. It owned outright 54 main industrial establishments, in textiles, paper, cellulose, leather, footwear, ceramics and iron and steel industries. It also owned 20 subsidiary factories, 20 power stations, numerous repair shops and many wholesale stores.

In addition, Sümer Bank owned 10 million Turkish liras (\$5.5 million) of shares in such nominally private institutions as Turkish Sugar Mills, Ankara Cement Co., General Turkish Stores, Ish Bank, People's Bank, Guven Insurance Co. and Real Estate Loans Bank of Turkey.

Profit and loss statements of this institution not only are incomplete, but have little meaning. Accounting practices are subject to great variation, prices are arbitrarily fixed and there are many contracts among state institutions which affect financial results without much relevance to what we understand as business operations. Like all Turkish state enterprises, Sümer Bank is exempt from the compulsory public supervision of accountancy and auditing which applies to private institutions.

It reported a total profit in 1947, after taxes, of approximately 25 million Turkish liras (\$8.8 million at devalued exchange rate of 2.83 TL to the dollar). Most of this profit apparently came from the manufacture and distribution of textiles. The bank reported losses in cellulose, paper, leather, footwear and ceramics (the amount of some of these losses was unstated). A profit was reported in iron and steel.

#### *Eti Bank Established*

Sümer Bank before long was paralleled by other state institutions. On June 14, 1935 Eti Bank was established to exploit mineral resources and develop electric power. Its man-

date was not only to discover and exploit mineral resources, build power stations and transmission lines and distribute electricity, but to take over existing developments, buy and sell products within its field, produce electrical equipment and engage in banking operations. Its original capital of 20 million Turkish liras (\$11 million) was increased to 100 million liras in 1942 (\$55 million) and to 146 million (\$80 million) in 1946.

The most extensive single operation of Eti Bank is the Ereğli Coal Mining Company, which it legally expropriated from the former French and Italian owners in 1940. This company is developing an area 120 miles long and 12 miles wide which is part of the Zonguldak coal basin extending along the Black Sea Coast. Eti Bank also, through subsidiaries, sells and distributes the coal, and operates iron, chrome, copper, lignite and sulphur mines. It controls lead-mining companies and a company which is building a large power station. It owns shares of the Ankara Insurance Company and the People's Bank, Ltd.

The coal output was about 3.8 million tons in 1946. Productivity is so low and costs are so high that it is heavily subsidized, to keep the price within the reach of consumers. During World War II belligerents on both sides rushed to buy Turkish chromium and copper. A new steel mill at Karabük, starting operations in 1940, made a heavy demand for coal and iron ore. Published reports of Eti Bank show consistent losses, but these reports lack significance in themselves because of subsidies, the fixing of prices according to state policy rather than by a market economy and other accounting complexities.

No private businesses have started within the field of Eti Bank since its establishment, though a few independent mining companies under Turkish ownership which existed before 1935 continue small-scale operation.

An important adjunct to Eti Bank is the Institute for Mineral Research and Exploration (MTA). Broadly, this

institute combines the functions performed in the United States by the U. S. Geological Survey, the U. S. Bureau of Mines and the private interests which do the actual exploration and prospecting in this country. It has an adequate organization, a well-trained staff and is doing important work basic to the whole development of Turkish industry.

Other state institutions have participated in the nationalization program. The Ministry of Agriculture established commercial agencies, such as sawmills and dairy product plants. The Ministry of Transport and Communications operates freight and passenger boats. The old state monopolies, formed under the Ottoman Empire to extract revenue from the sale of such widely used articles as salt, tobacco, matches, alcoholic beverages and tea, were renovated and adapted to the new plans.

### *The Quality of the Planning*

While capable management could be found for some individual establishments, the function of general coordination at the top, a far more difficult one, has not been so well executed. The single enterprise was designed to produce certain articles; its duty was to produce them in the amounts required. In addition, competent business-minded men of the country loyally supported the industrialization program and occupied many of the executive posts. But on higher levels it was not so easy to make good plans, to coordinate them or to execute them.

Merely to strive for general industrialization or for expansion in a series of given industries may be sufficient as a policy, but it does not fulfill the requirements of state planning for a nationalized economy. In a regime characterized by private enterprise, decisions about building new plants, choosing the products to be made, setting prices and the like are made by businessmen or investors according to their judgment of possibilities for sale and profit. The state which discourages private enterprise and a market economy

must establish other criteria for such decisions. These criteria must facilitate coordination of effort, the avoidance of waste in labor and materials and the effective service of the main objectives chosen.

Such planning was almost entirely lacking during the first five-year plan (1934-1939) and even yet apparently exists only on paper. Several efforts were made to set up administrative agencies for the national economy along functional lines, under a Central Committee at the Cabinet level. But these agencies always conflicted with the departments which had jurisdiction over the main divisions of the economy, and each department protected its own authority. Political interference augmented the intrinsic difficulty of the planning task. The functional agencies were powerless to effect their recommendations, as far as coordination of industrial development was concerned. The most successful of the centralized functional agencies were those which managed the allotment of money to the several branches of the economy. This was a budgetary necessity. But choice of the projects for which money was to be spent was under no effective planning control.

### *Coordination Lacking*

At the outset, the central authorities, of course, fixed the lines of development. But as industry grew and became more diversified, decisions tended to be made without much regard for a balanced national program. These decisions often reflected the zeal or ambition of men who saw only possibilities for expansion of a particular activity in which they were interested. For instance, at the Karabük steelworks an expensive electric furnace was added for the production of special grades of crucible alloys. This furnace must be idle until the rest of the Turkish economy grows sufficiently to create a demand for its products. A complicated and costly factory for the manufacture of artificial silk was erected in a region long famed for the profitable production of high-quality



MODERN CAPITAL OF OLD TURKEY is Ankara, and its architecture can be studied in this attractive view of Yenisehirden, the new section of the city.





natural silk, which met all reasonable requirements of consumers.

Early in 1945 the Ministry of National Economy issued a memorandum on the requirements of planning which revealed concern about such faults. It called for "a planning spirit," asked officials to define their policies in advance, to cooperate with one another, to take account of market conditions, to adopt uniform ideas as to the country's needs, uniform standards of measurement, of valuation and of methods of accounting, and to keep accurate records of operating results.

In view of the difficulties facing the Republic, the industrial advance achieved has been remarkable. Starting from a primitive and mainly agricultural economy, with an illiterate population, a traditional aversion to modern enterprise and the deadening influences remaining from centuries of absolute and corrupt rule, the new regime not only survived the depression of the thirties and a world war, but improved agriculture and enlarged industrial capacity. It would have been almost miraculous if in these circumstances a governmentally planned economy had succeeded in avoiding serious errors. And it must be remembered that a state-owned and state-planned system, which attempts to substitute central reason for the "automatic" adjustments of private enterprise, is defenseless against the waste and confusion which inevitably follow any failure of intelligent direction at the top, no matter how excusable such a failure may be.

### THE NATURE OF ETATISM

It has become customary for Turks to say that in the early stages of the Republic private enterprise was tried, and that it failed. Influential leaders have come to believe that it is not adapted to Turkey or consonant with her national purposes. There is no question that a large amount of state initiative and management was required for economic advance. But private enterprise was hardly given a fair trial.

It was barely started when Etatism became dominant in 1933. And, despite some apparent intention to preserve a place for private enterprise under that program, the intention was not carried out. Private enterprise did not fail; it was deliberately discouraged.

Under the first five-year plan those private establishments which had not yet achieved a sound position were discontinued. Those which had become firmly established went on operating, but now were drawn more and more into the state orbit by state purchase and sale of their products, instead of being prepared to stand on their own feet. Enterprises owned by foreigners, chiefly those in the public utility field, such as water, telephone, traction and electric power companies and the foreign-owned coal mines in the Zonguldak basin, were legally expropriated. Apparently fair prices were paid; their previous record of service was not good enough to warrant objection on the part of their private owners.

More injurious to the future of business was the severe capital tax imposed on private owners of minority interests in enterprises in which the state was a participant. This virtual confiscation not only fastened more exclusive governmental control on the businesses in question but destroyed the confidence of investors. The action was taken for economic ends only in part; it was aimed at eliminating an undesired group from the economic life of the country. Nevertheless, it still discourages any possible program for inviting private investment in national developments.

### *Internal Reasons for Etatism*

Etatism originated in an intense campaign beginning in 1932 to promote what the Turks call *devletçilik*, literally translated as "actively being for the state." It was the product of the energy and zeal of the small group of men who controlled the Turkish Republic. Yet it was not a complete scheme, conceived as a whole in advance and arising from one cause only. A number of influences combined to shape

and perpetuate it. Etatism was officially recognized as a tenet of Turkish policy in 1935, when it was written into the platform of the People's Party. Two years later the Constitution was amended to include it.

One influence was impatience for rapid industrialization; the Turkish Nationalists were not content to await the slow growth from small beginnings which usually characterizes a young regime of private enterprise. Another was the alleged incompetence or misbehavior of some of the private undertakings which existed.

Obvious flaws appeared in the operation of such private business as could come to life during the brief period of its trial. Some speculators, who had accumulated money in trade, made use of the tariff reduction to buy and hold imports off the market until a period of artificial scarcity enabled them to realize excessive profits. Unethical practices of certain individuals survived from the old regime, such as bribery of officials, maltreatment of workers and business trickery. Such practices are the bane of private enterprise outside of Turkey as well as within it.

It is probable that the date of the change also had great significance—in 1933 many nations, especially exporters of raw materials, suffered from the disastrous collapse of world markets resulting from the depression, and resolved to be less dependent on private trade in the future. Autarchical controls grew rapidly not only in Turkey but throughout the world.

In any event, Prime Minister Ismet İnönü, in announcing the first five-year plan, said:

The purpose of making Turkey an independent nation finds its expression in the will to change her into a *self-sufficient body*. . . . The main lines of the program and the extent of the projected industries were determined solely by the desire to enable the country to meet its own requirements. . . . It was found expedient to include in the Plan, and to entrust either the State or some national concerns with the building up of such industries as, it was thought, private capital was unable to establish efficiently. However, it

should be borne in mind that the foregoing key industries will give considerable stimulus to private initiative and capital.

It is hardly possible that İnönü's friendly gesture toward private enterprise was for political purposes, since much of the private business in the country was still in the hands of unpopular Armenian and Greek minorities. Like Atatürk at the beginning, he was not a doctrinaire, declaring for nationalization on principle or as part of a social philosophy.

### *The Meaning of Private Enterprise*

"Private enterprise" has become a widely inclusive term, covering many varieties of economic organization. The phrase may mean anything from the one-man shop to the most highly developed corporate system; it embraces both unrestricted competition among individuals and centralized managerial control. The authors of this report do not wish to lay undue emphasis on the bare distinction between private ownership and ownership by the state; the circumstances, the aims and the methods of management may differ greatly under either type of proprietorship.

What the authors mainly have in mind when they comment on the need for the contribution which private enterprise might make in Turkey is the existing lack of opportunity for creative activity on the part of the Turkish citizen regarded as an individual. There has not been much scope for the worker, the peasant, the small trader or the possessor of moderate savings to raise his economic effectiveness or improve his status by the application of work, ingenuity or capital to small enterprises under personal control. Turkey has lacked this elementary basis, out of which progressive modern industrialism has grown in Western countries. Of course the larger corporate form of business should also be included, in its proper place.

*Social Significance of Etatism*

The People's Party program of 1935 contained the following significant sentence:

Although considering private enterprise a basic idea, it is one of our main principles to interest the State actively in matters where the general and vital interests of the nation are in question, especially in the economic field, in order to lead the nation and the country to prosperity in as short a time as possible.<sup>3</sup>

This was probably the main rationalization of the change. Yet behind it were certain deep currents of Turkish life which cannot be left out of account in assessing the strength of Etatism or the chance that it will be modified in any essential respect.

Those who had produced the Revolution and were now governing the country came from the same families who had constituted the ruling class under the Ottoman Empire. They had installed a new and virile leadership, but they did not entertain the slightest intention of sharing their power or their economic supremacy. Most of them had never engaged in business or trade; they were an official, military and land-owning oligarchy. They looked down on the Greeks and Armenians who had conducted most of the private business and finance as alien and unwelcome elements in the population. The peasantry was separated from them by a deep gulf.

A considerable growth of private enterprise would have brought into being a larger middle class, with far more wealth and power than before. It was unthinkable that individual peasants might climb the economic and social ladder. The ruling Turks did not clearly visualize these potential threats to their status or deliberately take steps to avoid them; the possibility of such developments would scarcely occur to those steeped in their tradition. The benefits to be derived from a really democratic and enterprising society simply were not understood by those at the top; they naturally and intuitively neglected to facilitate its growth.

3. Program of People's Party, 1935, Part II, Par. a.

The extension of the state machinery and of the economic units under its direction was well adapted to safeguard the status of the ruling class and the political power of the People's Party. And it was an easy way to provide jobs and other perquisites for those who were accustomed to hold government posts but had little experience in other methods of making a career or earning a livelihood. The prevalent overstaffing of Turkish governmental offices and enterprises of other sorts is not a spoils system as it is known in Western democratic states. It is not regarded as a practice of dubious civic morality; rather it is taken for granted as a centuries-old prerogative of the ruling families, whose members think of themselves as being entitled to public employment.

### FOREIGN INFLUENCES

In 1933 the Western world was in the depth of depression; Soviet prestige was correspondingly increased. Even if Turkey had chosen to turn to the West for aid, she probably would have found little encouragement. Foreign loans previously made throughout the world by the United States and other nations were frozen, and there was little capital available for export. Far from wishing to accept payment in goods, Americans were suffering from unemployment and thought they were burdened already by a surplus of goods produced at home. In these circumstances it was natural for Turkey to seek and accept Russian cooperation.

#### *Soviet Influence*

Once Turkey had accepted Russian ideas of state control and the guidance of Russian experts, the environment was bound to become unfavorable to private enterprise, whatever the official intention. A foreign machine installed to turn out a product of a certain size and shape, and thereafter operated by rote, will keep on turning out the product for which it is designed. The Russian program was formulated, not to foster and develop private industry, but the reverse.

The operation of the planning function itself, however, is a different matter. It requires constant vigilance, and an intricate system of adjustment and coordination which will not proceed automatically but demands a high order of intelligence and skill. Whether these requirements are well met in Russia is a question which need not be discussed here. But Turkey, at all events, took over something which now resembles a paper program, a jargon full of "Supreme Economic Councils," and "Planning Commissions" and high-flown statements of objectives, rather than any reality of planning. There is reason to believe that the succession of five-year plans in Turkey has not in fact constituted the guiding and activating force in the economic development which has taken place, but rather has reflected and summarized, for publicity purposes, projects which originated in political, military or particularistic sources. What we see in Turkey looks, not like a planned economy, but like a poorly managed capitalist economy in which most of the capital happens to be supplied by the government.

The Russian influence, therefore, resulted in the adoption of the form, rather than the substance, of state planning. It also left its mark in numerous minor practices, not necessarily adapted to Turkish conditions. The result is a hybrid which does not embody the best potentialities of either of its parents. Whether Turkey could realize the possibilities of a thoroughgoing state-owned and state-planned economy without adopting the basic assumptions and goals of Communism may be questioned. The nation certainly cannot reap the possible benefits of private enterprise without drastic change in the forms and practices of Etatism.

### *German Influence*

German interest in Turkey has been well known for many years. A few thousand Turkish troops were trained by von Moltke at the invitation of the Sultan; the Prussian tradition has continued in the army ever since. Before World



War I Germany's *Drang nach Osten* expressed itself in the project for the Berlin to Baghdad railway. Turks often sent their sons to Germany for education, especially for technical training. Under the Turkish Republic the greatly increased need for technicians and scientists reinforced this educational trend. It continued until the outbreak of war in 1939. In Germany influential Turks absorbed not only technical knowledge but the military tradition and the assumption of state supremacy.

At the time of the Third Reich Turkey was of special importance in Hitler's plans. Scarcely of less concern than her strategic position were her mineral resources, especially chromium and copper. In return for them Germany was prepared to offer Turkey the technical aid which the Republic needed for its industrialization program. During the decade before World War II, German experts swarmed over Turkey, as advisers, teachers, archaeologists, engineers, agronomists. They prospected for minerals, studied the transportation situation, made designs, drew up estimates and wrote learned reports.

When a project was under consideration, any German engineering firm would gladly draw up a plan for it, charging nothing for its services unless it got the contract for construction. This was not the practice of British, French, American or other engineers. The German firm in question, however, did not go without compensation, since it was remunerated by the Reichsbank out of the total of Turkish exports to Germany, payment for which was centralized in the bank.

There was, however, one serious flaw in this cooperation from the Turkish point of view. Turkey wanted to become self-sufficient in manufacture; Germany was interested only in Turkish natural resources and in paying for them with German manufactures. The German effort was to develop the resources and railways with a view to gaining for her own use Turkey's natural wealth. The foreign trade policy

of the Third Reich tended to impose on satellites that very colonial status which Turkey was struggling to escape. "The Germans," said a Turkish official who worked with them, "were willing to help us in every possible way—except to build factories for products which they could supply us from their own plants. They would do this only when it was a case of doing it themselves or letting a foreign competitor do it anyway."

Indirect German influence and example certainly did nothing to weaken Etatism, but the direct activities of Germans were halted by the war before they had extended much beyond the technical field.

### *The Present Situation*

During and after World War II both Russian and German influence declined rapidly. Both nations were regarded by the Turks, in their efforts to remain neutral, as potential enemies. Turkey does not desire to follow either of these models. In her plans for the future, Turkey has been thrown more upon her own resources.

She still, however, needs foreign help for industrial development. History would indicate that she is inclined to seek ideas and patterns of behavior from the source from which foreign assistance may be obtained. This raises the question whether America, which possesses the physical capacity to contribute, also has ideas and methods by means of which that contribution could be made effective in strengthening, not just the Turkish state, but the living standards and welfare of the Turkish people. In a broad sense, Western ideas have had a great influence on the modern Turks in the past, and especially on the form of government and laws which the Republic adopted at the beginning. But this foundation has not been built upon in the intervening years. America first isolated herself, and then was concentrated upon her own problems of depression and war. Only recently have her eyes turned toward the Turkish situation.

A reassessment of the methods and the results of Turkish industrialization under Etatism would seem now to be in order. Not until that is done is it possible to know whether the United States can cooperate with Turkey, and, if so, how. The important advances in productive capacity made so far have not resulted in anything like corresponding improvement in the Turkish economy as a whole, or in the life of the people. The following chapters review in somewhat more detail what has been achieved in the various divisions of the national economy, and what deficiencies appear.

### *Chapter 3*

## AGRICULTURE

THE APPROXIMATELY four fifths of the Turkish people who are engaged in agriculture or depend on it for their livelihood not only form the broad basis of the national economy but constitute almost the whole of it. They feed themselves and the rest of the population; Turkey imports little food except luxuries for the small class of city dwellers with higher incomes. The farmers also supply the overwhelming bulk of Turkish exports, with which are bought the manufactured consumer goods and the equipment for industry imported from other countries. The peasants pay the greater part of the taxes and other forms of state income which have been employed to finance the industrialization program, the military and other governmental outlays. The output of industry in turn is so relatively small, especially in goods farmers need or can buy, that they have derived little benefit from it. Turkish agriculture is basic in every sense of the word; upon its fortunes and efficiency depend the welfare of the whole people and the opportunity of the nation to advance in wealth and power.

Statistics of national income are notoriously unreliable in underdeveloped countries, especially in those dependent largely on subsistence agriculture. Turkey issues no official statistics in this field; only estimates are available. Even estimates are likely to be shaded down by officials, because the size of certain foreign payments depends on them. The Minister of Agriculture in January 1947 estimated the income of agriculture during the war years as ranging between about \$3.5 billion and \$4.5 billion, or from 42 per cent to

58 per cent of the national income. This percentage undoubtedly underestimates greatly, if it does not omit entirely, the value of crops consumed on the farm, which form the greater part of what is raised. It also probably omits the industries processing or handling agricultural products.

As far as Turkey is dependent on foreign trade, the fortunes of a few crops affect her economy critically. Tobacco alone accounted for 22 per cent, by value, of 1946 exports. Cereals and legumes, hazelnuts, raisins and figs were other important items, accounting together for 39.5 per cent. (See Appendix Tables 31 and 33.) A failure of the tobacco crop on the Aegean Coast—where a large part of it is grown—strikes alike at the peasant cultivator, the city of Izmir, the revenues of the national government and the program of industrialization. Bad weather for grains not only reduces the domestic food supply but limits the badly needed foreign exchange. Unfortunate results follow a frost which nips the blossoms of the nut trees on the Black Sea Coast or a blight which attacks the vines of the Aegean, Marmara or Thracian regions.

Turkey is equally sensitive to the wide variations of world markets and prices for her agricultural exports, most of which fall in the luxury category. Even in the case of wheat, of which she has only recently developed net exports, world price variations have long been felt immediately in the internal economy.

### HOW FARMERS LIVE AND WORK

No feature of the countryside is more striking, from Thrace to the Caucasus, than a landscape of cultivated fields, either scattered or in an irregular checkerboard pattern, without a building or sign of habitation to be seen. After five or six miles of travel, or even more, a tiny village will come into view, consisting of ten to fifty closely spaced buildings perched on a hilltop or ranged along the side of a ravine. Here live all the peasants who cultivate the surrounding

land. Lack of roads and the short daily "cruising radius" of the oxcart, the donkey or of toiling women limit the area which sustains the village.

In the more fertile and populous regions, the lands of one village will border those of the next one. In the less favorable areas, each village is the center of a social and economic island, surrounded by uncultivated and unpopulated land on which, in many cases, lie undisturbed the residues of ancient civilizations.

Along the Aegean Coast and parts of the Mediterranean, many areas are more suburban than rural—though not in the American sense of residence for commuting city workers. These areas are close enough to the cities so that within recent times huddling together has not been necessary for protection from foreign invaders or domestic marauders. Here the cultivated land is somewhat reminiscent of the American countryside, where each small farm has its own house and outbuildings. The road systems in these regions, though poor by our standards, at least permit communication among neighbors and contact with the services of the village or town.

The character of the buildings throughout the farming country is a direct reflection of the local climate and the available building material. Little concession is made to either comfort or appearance. Each stone, timber, mud brick or carved marble block from an ancient temple plays its maximum part in protecting men and beasts—frequently both together—from wind, sun, snow or rain, or from attack. In the mountainous country, rock is frequently used, and the typical mountain village of stone houses and crooked stone-paved streets is scarcely distinguishable from the landscape of which it is a part. In the forested regions the houses are built of hewn and hand-sawed timber which, as paint is not used, has long since weathered to blend with its setting. The warpings and bulgings and patchings, the broken shadows and irregular profiles, could scarcely be matched by studied

camouflage. On the steppes and in the river valleys, where neither stone nor timber is available, mud bricks are employed as they were by the Hittites or the Phrygians, and with little change in architecture or purpose. Where, occasionally, both clay and fuel are available, the bricks are burned in kilns of ancient design to make a dull red tile, adding color to the village.

Nowadays in many a village there may be seen a symbol of the Revolution—and it may be seen for miles—a square, white-walled, red-roofed building or row of buildings which houses the new state undertakings. There may be a school, or a state headquarters for agricultural products distribution, or an office for police or county official.

### *Sanitation and Homes*

If a stream is near by it is not only the source of domestic water supply but virtually an open sewer. In the streamless regions water is drawn from shallow wells which are polluted beyond redemption. Fuel consists of briquettes of cow dung, collected during the summer and fall, molded and piled against the walls of the houses and into open spaces in the yards so that it will be at hand for the winter. Window screens are not known in the villages, and flies circulate in swarms. In the absence of toilets and bathing facilities for most of the village people, the conditions affecting public health could scarcely sink lower. Such immunity as has been developed over the ages plus the cleansing effect of sun and rain comprise the only safeguards against infection.

Doctors and health services are extremely rare. Sketchy health statistics reveal a high incidence of tuberculosis and malaria, dysentery and other infectious diseases.

Inside the villager's house, the furnishings are reduced to the utmost simplicity, although variations reflect differences in circumstances, number of occupants and personal taste. The typical house will have an earthen floor covered with straw matting and a locally woven rug. Some of these

rugs are of great beauty and could be sold for enough to furnish the room adequately in other respects. But cash means little to peasants who have no market in which to buy and few wants which cannot be satisfied with the fruits of their own labors. The loom on which the rug was woven is likely to be standing just inside the door where the light is best. Ranged around the walls will be rolls and bundles of personal possessions which serve as seats. One house, often one room, will shelter several generations of the family.

### *Food, Animals and Working Habits*

Most of the produce of the land, except around the coasts where specialized crops are grown for export or industrial uses, is consumed by the peasants themselves. The staple diet consists mainly of cereals and milk, plus fruit and olive oil in the districts where these products are grown. Yoghurt—curdled milk—and bulgur—a hominy made of wheat—can be found almost everywhere.

A staple article of diet of well-to-do Anatolians is pastima, a preparation of dried, pounded meat and spices, highly flavored with garlic. Fresh meat is infrequently eaten. The farm animals are kept largely for draft purposes and milk products are the only food regularly obtained from them. There are no facilities for refrigeration of meat; any animal killed must be eaten on the spot. Cattle are shipped only on the hoof. The city populations do eat more meat, which is butchered in the various localities where it is consumed. Where sheep are raised, mutton forms part of the diet, especially in the rugged east, but the animals are raised for their wool and not principally for food.

In most of rural Turkey, there is scarcely an indication of change since ancient times. Only hand tools of primitive design are used. The plows are made of wood and leave a shallow furrow. They are as a rule drawn by oxen, small in size, weak and emaciated in the spring, when much of the



plowing is done. The oxen also pull carts with solid wooden wheels. Donkeys, goats or sheep usually comprise the only other livestock of the peasant family. In some regions Indian water buffaloes or camels may be seen.

In view of the fact that the Turks who invaded Anatolia were known as horsemen, and during the heyday of the Ottoman Empire were celebrated for their cavalry, it may seem strange that there are almost no horses on the farms. One reason is that such horses as farmers owned were often requisitioned for the army. Another is that a good horse would be a sign of wealth, and through long and sad experience the Turkish people have learned to avoid possession of anything that would attract the eye of the tax-gatherer. A third is that horses would have to be fed grain or hay through the winter, when no work can be done, whereas oxen can subsist on straw. Oxen themselves usually come through barely alive, regaining weight and strength during the growing season until by fall they have put on enough flesh to withstand another period of semistarvation.

As a rule the women do the field work, except during planting and harvest seasons, when the men and boys join them. By this means the family raises all it eats, together with such small surplus as can be transported to market. Even so, the traveler sometimes sees crops left unharvested and rotting in the fields. The men spend much of their spare time in the primitive coffeeshop, talking or playing games. In every village there is at least a room, and in every city and town a house (the Halkevi, or People's House), which constitutes the local headquarters of the dominant People's Republican Party. Here there are papers or magazines for those few who can read. Those who cannot, listen to reading by a literate party representative. Usually the Halkevi has a radio.

### *Not Lazy, But Frustrated*

When any kind of work is to be done that is not assigned to women by tradition, for example repairing a road (where

there is a road to repair), erecting a building or sawing timber, the men do it with a will. The same men, when they leave the farm for employment in the factories or the mines, are industrious and capable.

The idle groups are reminiscent of a crowd of workmen in America waiting for the foreman to come and tell them what to do. It is futile to argue that they should find something to do themselves. An equilibrium has been established between the meager hope for a better life and the fruits of a meager effort. A revival of hope would stimulate new effort. But the objective sought must be one within reach—not the boast that what can be done in Detroit can be done also in Kars.

Some have left the village to seek jobs in government factories or other enterprises. With the loss of men to industry, the average level of activity in the village has probably gone down rather than up. The conscription of young men for military service no doubt has the same effect.

Official interest in the peasants has not been greatly in evidence except for political purposes, but many individual state servants continue their work as teachers, doctors and agricultural advisers despite inadequate appropriations and central political indifference. It is possible to argue that this labor will be wasted unless better opportunity is provided for agriculture, since boys who have been to school and learned the rudiments of a trade are not likely to remain in a roadless and waterless valley. Both the means and the desire for better living must be provided if Turkey's peasants are to become part of the Turkish Republic.

### *Varieties of Crops and Methods*

Actual farming methods, as well as the character and customs of the village itself, differ somewhat according to the climate and the nature of the crops.

In the interior of Anatolia, where the precipitation is light, the summer hot and the winter cold, wheat is the principal

crop, though most of it is locally consumed. Hard wheat is the seed mainly used, and fall sowing has become largely established, under government pressure. As a rule the seed is scattered by hand in October and then worked in with the wooden plow. Grain is reaped and threshed by hand. Modern agricultural machinery is employed only on the few state or large private farms. (For yield figures, see Appendix Table 3.)

The months of September and October usually provide enough rainfall to germinate the seed and bring the young shoot far enough along to withstand the winter. The melting snow and the rains of spring are as a rule sufficient to mature it; harvest is in July. If, however, rain does not come early enough in the fall to permit sowing, or if an early freeze injures the plants, sowing will be done in spring, in the hope that the wheat may begin to mature sufficiently before the normal summer drought, when the streams empty and the grass turns brown. Winter wheat, when successful, is said to yield twice as much as wheat sown in the spring.

Here, as in most other Turkish agricultural regions, the farmers use no fertilizer of any description. They could not buy prepared fertilizer if they wanted it, and dung is burned as fuel. Since the land is sparsely settled, however, they usually move their planted fields about, leaving fallow land to accumulate moisture.

More intensive farming is practiced in the coastal regions and in the valleys where rainfall is abundant and there is less variation in temperature. Wheat, usually of the soft, spring variety, is grown for local consumption, but here the tobacco, nuts, grapes, figs, other cash crops for export, as well as cotton, beets and sugar cane for manufacture, are produced. Vegetables and many fruits are also grown, chiefly for domestic consumption. The villages in these richer areas are less primitive; in some of them the dwellings are more scattered. There are a few large estates or planta-

tions which employ agricultural wage earners and more modern methods.

### *Irrigation*

Irrigation is practiced on many Turkish farms, though not by means of large engineering works. The individual farmers find their water, where they can do so, and divert it to their uses by the simplest of methods. For instance, rice is grown in many parts of Turkey—even in the interior of Anatolia in places where deep valleys entrap hot sunshine and running water. The water is often diverted to the rice paddies from fast-flowing streams by check dams, canals and ditches with earthen banks here and there reinforced by wood or stone and carried over obstructions by simple viaducts. The construction is of the type possible with a man's hands and a home-made shovel. This system is also occasionally, but not sufficiently, used for cereals or fruits in the drier areas.

In the dry-farming area mountain streams sometimes are tapped in this way, with beneficial results, to give the land one light watering before planting winter wheat. This practice is extremely favorable for quick germination and might well be extended.

In regions of intensive agriculture, water is often lifted from a stream by a primitive water wheel driven by the force of the current. It is then channeled to the fields through a sluice. Sometimes diversion dams or walls direct part of the current toward such a wheel.

In some places underground water is brought from wells by pumps operated by windmills, or by the chain-and-bucket method with animal power. Gasoline motors or Diesel engines are as yet far beyond the means and skill of most farmers.

In the highlands of central and eastern Anatolia, stock raising goes hand in hand with the growing of cereals; herding becomes more important as the elevation increases toward the east. Along the Iranian frontier lies the home of the

wild Kurdish tribesmen, who for centuries have been nomadic, although in recent years the government has attempted to settle them on the land. It is from the interior that most of the wool and the goat's hair comes. The native black cattle are small and are used mainly for their milk; experiments are being made in crossing this breed with the brown Swiss. In the Kars, the northeastern section of the country, a red dual-purpose animal of medium size known as the *Kole* is the principal breed. Here there are fine grazing grounds, and the cattle, if properly bred and fed, are capable of becoming good beef animals.

#### STATE AIDS, COOPERATIVES, LAND POLICY

No important agricultural progress is possible without provision of better marketing outlets than those which survive from ancient times and still characterize most of Turkey. Nobody knows how large a percentage of what Turkish farmers raise reaches any market at all, but it is a small part of the total. Most of the markets which exist are local—except for the commercial export crops grown near the seacoast. Probably not more than 5 to 10 per cent of what is raised ever leaves the district where it is grown. Of this amount, in turn, perhaps one third is exported. Towns and cities are largely fed from farms in the immediate neighborhood.

Until this situation is altered, it would be useless to attempt to increase agricultural output by improved methods, since the labor would be wasted. Several farmers told members of the Twentieth Century Fund team that they would not enlarge their output because of lack of transportation and storage. There is no incentive for the peasant to work harder and to use better machinery, seed or methods, because he usually has enough to eat and could not sell much more than he does. He could not buy the necessary materials or equipment, to say nothing of more goods for his household, for the same reason. Turkey's main base of production and

her chief potential domestic market have remained almost undeveloped because of lack, in the first instance, of adequate transportation.

### *Primitive Marketing*

The farmer normally follows the primitive method of selling his produce and of buying what he can in exchange. By donkey or oxcart, he carries his crops over prairie trail or hillside track to a village or town where a local market exists—an average distance of about ten miles, though the distance varies widely according to the part of the country. Here there is a market place where goods can be bartered with other growers or sold to a private merchant as from time immemorial. In certain localities there is in such a center a government buying agency, a tobacco warehouse, a sugar beet warehouse or a cotton mill, but such establishments are exceptional. There is almost no cold storage or refrigeration for perishables.

At markets where the state has not intervened—and in the greater part of the country it has not intervened at this level—there are no grades or standards, no published prices or established prices of any sort. The farmer, his wife, and perhaps his children, lay out their modest produce and wait for a buyer to appear. If the buyer is a merchant, the peasant is likely to be in debt to him and is in no position to bargain. The merchant often sells in return household goods such as kerosene, cloth, dishes or cutlery; these may be purchased also from wandering peddlers or even from small retailers in the large centers.

Most Turkish products are highly seasonal, and markets are customarily glutted at the time of harvest because all the neighboring farmers bring in their crops on the same days. If the carcass of a sheep or a cow is displayed, it is immediately covered with the pestiferous flies. Decay will soon claim this as well as other types of perishables; hence the peasant must accept what is offered for such products at

the time when prices are at their lowest. In the case of some products such as eggs, merchants go about the countryside from neighboring towns and purchase direct from the farm village.

The farmer has no means of moving his produce to the larger centers; this is done as a rule by the merchant, whose operations are in turn restricted by the absence of good roads or of trucks to pass over them, by the high cost of transportation, by spoilage and by wastage through lack of proper preparation of his wares for market. As the crops come from the villages they are full of dirt, mixed in kinds and classes and badly packed if packed at all.

Restricted though the marketing channels are, they are highly sensitive to the effect of the sharp variations in prices which arise in the larger areas of trading. Let the price of wheat or tobacco fall in world markets, and every Turkish peasant who sells these crops will immediately suffer accordingly. The high cost and the inefficiency of Turkish agricultural marketing have been masked by the abnormal demand caused by the recent war, but they will be plainly evident in losses to the farmers and the nation as soon as world prices markedly decline.

### *State Marketing: Toprak*

In the depression year 1932 the low price of wheat had such disastrous effects on Turkish farmers—and hence on the whole economy of the nation—that a law was passed authorizing the establishment of a state agency under the Agricultural Bank to purchase, store and sell, under regulations to be decided by the Council of Ministers, all the wheat offered. It set a higher price than could be obtained on the market, the loss being borne by the taxpayers. Any profits that might be made in better years were to be used for the construction of elevators, warehouses and other buildings useful in the marketing of farm products.

In 1938 this agency was transferred from the Agricultural

Bank to the Ministry of Economy. Its official name, Central Office of Products of the Soil, is usually abbreviated to Toprak. Its nominal capital, supplied by the Agricultural Bank, is 30 million Turkish liras (\$16.5 million at the pre-devaluation rate of 1.82 TL to the dollar). Loans for operations are advanced by the Agricultural Bank, at the usual rate of interest. In 1939 its powers were extended to include barley and oats—the other principal grains of Turkey—and it also controls peanuts and the opium monopoly. During the war it acted as a sort of Food Ministry, buying not only grains but rice, peas and other food products and operating flour mills. Toprak is empowered to buy; to sell; to store; to stabilize prices; to restrain private speculation; to export and import; to improve grading, standardization and marketing; to own and operate warehouses, elevators, flour mills and bakeries; and to distribute seed in order to improve the strain of cereals. It has a monopoly of imports and exports, but not of flour mills or internal markets. Its principal function, in fact, has been to subsidize the wheat growers by control of prices. It is the Turkish parallel of the AAA in the United States and the Wheat Board in Canada, and, given its circumstances, has done an efficient job.

Toprak does not, as a rule, extend down into the small local markets, and has done little to improve the physical efficiency of marketing on the lower levels.

### *Wheat Storage and Transport*

Out of a total crop of, say, 4 million tons in 1946, Toprak purchased 800,000 tons. The rest was mainly consumed locally on farms and in villages; a small proportion was sold to private merchants, and some was left to rot because of lack of storage and transportation facilities. In December of that year, Toprak had storage space for about 585,000 tons—395,000 tons in 144 buildings owned by the agency and 190,000 tons in rented buildings or old farms. Wheat which cannot be kept under roofs is piled on the



ground and during the winter is covered with canvas or sheets and earth.

The transport facilities of the agency consist of only 130 trucks with an average capacity of two and one half tons; they move wheat only from one depot to another, or to railways or elevators. The inadequacy of this equipment, combined with the lack of roads, the poor condition of many of those which exist, and the small capacity of the railroads, greatly hampered the handling of the crop. It required eighteen months to move to the ports some 400,000 tons of grain sold abroad in 1945 and 1946. The ports in question—Istanbul, Izmir, Samsun and Iskenderun—do not have sufficient storage and loading facilities, and this also delayed the movement of the crop.

#### *Grading and Seed Distribution*

Local markets do almost no cleaning and grading of grain, and the government agency itself leaves much to be desired in this respect. Toprak works on the assumption that all wheat delivered to its depots contains not less than 5 per cent of stones, dirt, dust and other foreign matter; the cost of transporting the impurities has been estimated at 2 million liras annually (roughly \$1 million before devaluation of the lira) by Toprak officials.

No less than 200 varieties of wheat are grown in Anatolia. Farmers customarily plant seed saved from the former year's crop, or obtain seed from local markets by barter. Toprak distributes seed which has been subjected to at least some process of cleaning and selection, much of it from the state farms, but so far only a small amount in proportion to the need. There are ten experimental and plant-breeding stations, usually associated with experimental farms; one of their tasks is to ascertain which of the many varieties is best suited to the various soils and climates where wheat is grown, but they lack finances and the work proceeds slowly.

Farmers who buy their seed from the state may offer their

own products in exchange. The Agricultural Bank or the credit unions may lend money for the purchase of seed, repayable after the crop is harvested. Free seed is sometimes distributed following a drought or other national disaster.

### *Government Price Policy*

Toprak controls the prices of every agricultural commodity which it handles. The main effort is to raise prices as high as possible in order to increase the income and buying power of the peasant. The price for wheat is calculated after due consideration of prices at Liverpool, Chicago, Winnipeg and other world centers, as well as of costs of production and internal prices. Toprak has continued to subsidize the farmers, as was the practice between 1933 and its reorganization in 1938. Toprak's recommendations are drawn up in a price schedule recommended to the Ministry of Commerce, which passes on the recommendations and in turn submits them to the Cabinet. The Cabinet, which has the final decision, issues the price schedule, or *barem*, between June 15 and June 30 of each year, and it has the force of law.

Normally Turkey both imports and exports some wheat; in 1946 for the first time she had a net export surplus. Export prices are also fixed by the government at the recommendation of Toprak. The export prices are quoted, not in Turkish currency, but in pounds or dollars, that is, in the currencies of the sterling or dollar areas. After the devaluation of Turkish currency in 1946, this had the effect of requiring Britain to pay the same price for Turkish wheat as would have been charged if the devaluation had not occurred.

Since 1946 an open market for wheat has been established within Turkey. Private flour mills taken over during the war have been restored to their owners. Farmers or merchants may sell, and millers may buy, in this market, or farmers may sell to agents of private companies who visit them on their own land. The government still owns mills in

Istanbul and Samsun, and although it appears to be the policy to allow private enterprise a major share in the flour industry, Toprak continues to dominate price setting through its large purchases of domestic wheat and its virtual monopoly of foreign trade.

### *Cooperatives*

One of the policies of Atatürk was to encourage cooperatives for the benefit of the peasants, hoping that they would not only aid agriculture to achieve higher income but also provide business experience. Special legislation was enacted for this purpose, and has since been amended several times. The movement is by no means as widespread as the state marketing activities, but it has achieved successes in special crops and regions. In 1944 there were 82 local marketing cooperatives with a total membership of 95,000—a tiny percentage of the farm population. These in turn were federated into seven cooperative wholesaling unions. The unions cover, respectively, figs and raisins in Izmir, miscellaneous crops in Iğdır and Çukurova, food and vegetable marketing in Istanbul, pistachio nuts in Gaziantep, hazelnuts in Giresun, silkworm products in Bursa, tobacco in Hasankeyf.

The functions delegated to these societies are similar to those carried out by agricultural cooperatives in other countries—standardization, grading, encouragement of quality, the preparation and processing of products, selling on both home and foreign markets at a remunerative price and the sale to their members of implements and materials for production.

Membership in a cooperative society is confined to farmers; no less than ten are required for the organization of a local unit. Each member is obliged to market through his society all his sales of commodities handled by the society, and to inform the society in advance of the approximate amount he expects to deliver. The local societies pass on the produce

to the respective unions to which they belong; the unions do the wholesaling and most of the processing of the products which come to them. Any member of an agricultural credit union is obliged by law to belong to the appropriate marketing cooperative in his district (provided there is one).

No more than one cooperative society can be set up for a given product in a given region. In the spring of 1947 the Turkish press reported that the government was urging cooperatives to specialize in particular crops, so that in future there would be one for each type of commodity. Growers have criticized the cooperatives which handle several different crops on the ground that it is difficult for the members to control such societies since every crop is likely to be grown by a separate group. Specialization was expected to extend to the wholesaling unions. One of the objectives was to standardize products for the country as a whole, with particular emphasis on varieties best suited for foreign markets. Another was to enlarge the distribution of fertilizer and other supplies.

The cooperatives are under jurisdiction of the Agricultural Bank, which extends the credit which they need. In 1944 the loans advanced to them exceeded 30 million Turkish liras (\$16.5 million).

### *Agricultural Credit*

The Agricultural Bank is the oldest state banking institution in modern Turkey. It was originally established in 1863 by a provincial governor under the Ottoman Empire, and was later taken over by the Republic and reorganized. Under the reorganization the bank fell heir to the assets of the old institution, and also was provided with new capital from three sources—6 per cent of the annual revenue from the national property tax, extraordinary credits from the government and the profits from its own operation. One quarter of the profits go to the capital account; the other three quarters to reserves.

The Agricultural Bank may provide credit to other governmental agencies having functions in the agricultural field such as Toprak and the Sugar Administration; it makes loans to cooperatives, credit unions or other organizations of producers; it also will extend loans to individual farmers for farm implements, seeds, marketing and other related purposes. It has many branches throughout Turkey. The Agricultural Bank controls the Savings Bank of Istanbul, which extends mortgage loans on land, gold and jewelry. Its activities include administration of grain elevators, distribution of seeds, and the purchase and sale of agricultural commodities for the account of Toprak, the Ministry of Commerce and other state agencies. In addition it has supplied funds for railroads, port construction and other public works.

### *Credit Unions*

Credit unions, all under the regulation of this bank, are cooperative in structure but hardly so in actual operation. The rules are of the sort familiar elsewhere—one man, one vote; shares must be held in proportion to credit received. The shares cannot be pledged to third parties, and the credit unions have the exclusive right to mortgage their members' products or productive property. Loans may, according to law, be used only for productive expenditure—though this provision is difficult to enforce and probably is not widely observed. Supposedly the unions are to make loans out of capital collected from the members as well as out of advances from the Agricultural Bank; in practice they are mainly channels for the flow of bank credit. The rate of interest charged members is 6 to 8 per cent for revolving credits; the bank charges 3 per cent to the unions. This is, of course, an extremely low rate for a country in Turkey's stage of development.

Membership in the credit unions has grown rapidly, but by 1945 the total was only 225,000 out of the millions of Turkish farmers. There were 617 societies covering 5,749 locali-

ties. Loans to members made during the year were 48 million liras (\$26 million). Repayments by members during the year fell so far behind advances to them that the difference was about 15 million liras (\$8.2 million).

The Agricultural Bank loaned the societies 73 million liras (\$40 million) in the same year, against repayment of 36 million (\$20 million). Repayments by the societies to the bank have steadily fallen far below the advances from it, seldom being much above half. No doubt the rapid growth of membership accounts for part of this continually expanding indebtedness on the part of the societies. Some of the credits also are long term, and finance the purchase of farm equipment and even the erection of community buildings.

It is likely that some loans both to the societies and to the members were employed for purposes other than those for which they were issued; the caliber of the administration leaves much to be desired because of the lack of trained men. Many of the loans probably have found their way into current consumption. The expansion of agricultural credit must have been a considerable factor in the growth of inflation. In spite of all faults, however, the bank plays an important part in financing that relatively small section of agriculture which depends on markets.

Aside from the collection of loan payments, which is especially difficult where the state is the lender and political considerations may enter, state direction of cooperative marketing and credit societies plays a far larger role than would be thought desirable in Western countries. Representatives of the Agricultural Bank scattered through the countryside exercise a large influence over them. No doubt this is inevitable in a country where the state was obliged to assume much of the initiative, but it is to be hoped that greater autonomy and responsibility of the cooperative movement will be achieved.

*State Farms, Research and Education*

The Ministry of Agriculture has an elaborate program aimed at improving agricultural practice, but the majority of the peasants derive little benefit from it. One can travel thousands of miles in rural Turkey without seeing many of the results which would be expected from research, education and extension services, or even from credit to finance better productive methods.

Ten farms presented to Atatürk while he was President are now run as model farms by the state; their products are sold in government retail stores in the principal cities. During the recent war an immense program of state grain farming was inaugurated on land most of which was previously unoccupied. Production began in 1942; in 1946, 225,000 acres were harvested. State farms produce much of the wheat recorded as entering commercial channels, and account for the surplus available for export. Their practices will be described in more detail in the subsequent section on wheat. They are separated from the level of the peasant farms by almost as wide a gulf as if they were in North Dakota.

The Ministry of Agriculture carries on research in such subjects as water resources, dry farming, economic conditions, production methods, control of plant diseases and insects, horticulture, seed improvement, animal breeding, animal diseases, agricultural processing industries. It operates five animal-breeding stations and four cattle farms, and administers quarantines. It distributes seeds, maintains inspectors in each of the vilayets, or provinces, and collects statistics for the government.

The Ministry conducts one agricultural college in Ankara, four agricultural high schools, and six technical schools in rural districts which specialize in training farm boys on the job. Education is much hampered by the fact that only 15 per cent of the rural population is literate, as well as by the prevailing poverty and lack of equipment.

An extension service, begun before the recent war in three

vilayets, is now being expanded with the aid of several Turks graduated from American agricultural colleges and familiar with the American method of the demonstration farm. The plan is to show by example rather than by precept what can be done with improved methods on a small farm subject to the same conditions as those in the neighboring country. This "grass roots" program provides the most promising channel for contact between research at the top and the majority of Turkish farmers, but of course it is still in its early stages and requires sufficient trained personnel.

Under the Ministry, a forestry department is responsible for state forests and the improvement of forest practices. It manages tree nurseries and 120 forest districts. The ambition of this project is laudable—to restore the once great Turkish forests and teach the peasants the value of trees for shelter, forest products and protection of soil and water supply. It has to struggle against the old practice of denuding tree growth by cutting young trees for fuel and using the shoots and bark for animal food. The Anatolian goat, found throughout the country, is the scourge of every growing green thing, so that fencing is a basic necessity for reforestation. Any hopes that fence wire and posts would be produced by the Karabük steel plant have been disappointed. Like so many other Turkish state activities modeled on Western practice, the forestry experts' high aims have not been translated into many practical results.

### *Land Distribution*

Turkey is often said to be underpopulated. Certainly its population density is lower than that of most European countries, and there is plenty of vacant land. Much of the unused land could be employed for grazing or dry farming; with a development of irrigation, some of the wasteland would support more intensive agriculture.

In a country so little surveyed, the statistics are not too reliable. They vary, too, from year to year, as the amount



of land under cultivation alters. A Turkish report for 1944, when war demands for food were at their height, estimated the cultivated land at about 19 per cent of the area of Turkey—approximately 17 per cent in field crops or fallow, and less than 2 per cent in market gardens, orchards, vineyards, olive groves and the like. About 16 per cent was listed as unproductive land or lakes, and 15 per cent was in forests. The rest—about half of the country—consists mainly of public lands classified as grazing land, meadows or pastures. The greater part of the land on which expansion of farming is possible lies on the central plateau. (See Appendix Table 2.)

As in most countries where peasant farming with primitive methods is the rule, the usual holdings are small. Of the approximately 2.5 million farms, 97 per cent are of 125 acres or less. The average size of these small farms is estimated at about 14 acres, but there is wide variation according to the location and the nature of the crop. Most peasant families could not make good use of more land than they have, with the tools and transport now available. Each village has a good deal of common land, which may include grazing and meadow land, forests, marshes and mountains. Middle-sized farms, from 125 to 1,250 acres each, number 57,000, or 2.3 per cent of the total, and there are 418 farms of over 1,250 acres. These figures do not include the large model and state farms.

### *Land Ownership and Reform*

Although before the Revolution most of the land in Turkey was owned by the Sultan, his Court, the Moslem Church and other absentee landlords, the reform program of the Republic has provided about two thirds of the population with their own land. Approximately 75 per cent of the farms are individually owned by their operators. The others are leased or operated on a sharecropping basis. In some parts

of the country, large-scale absentee landownership is still a real problem, and has restricted land redistribution.

Most of the uncultivated land in Turkey—that is, most of the land—is the property of the national state. The common land belonging to a village is held for the use of all its inhabitants, but is not open to other villages; this land is inalienable. About 20 per cent of the real property in Turkey technically belongs to the Moslem Church, but it is administered by the state and for all practical purposes may be regarded as public property. The privately owned farmland can be bequeathed to heirs, sold or mortgaged. Land leased from the state may not, of course, be sold or mortgaged, but the lease may be inherited.

These are the main facts of land tenure, but there is much uncertainty about the status of many pieces of land because of the lack of surveying, faulty registration in the villages (where illiteracy has been the rule), vaguely phrased laws, varying customs of inheritance, conflicts about water rights and the like.

The customs of inheritance, as in many other countries, have led to the fragmentation of land into small plots or strips, so that the property of a given peasant may consist of separate pieces scattered over a village; these pieces may be held on different tenures or leases. As long as the total amount of land worked by a single family remains adequate, this fragmentation is not too serious a handicap, but it would constitute a barrier to the efficient use of modern machinery, if such machinery were available.

The land reform carried out in earlier years is being further extended under a law of May 1945 which is intended to give small holdings to more of the rural population. Under this law, large tracts belonging to the state, the Church or private holders are to be subdivided and distributed among landless peasants and immigrants of Turkish nationality. No government department or private individual is permitted to retain more than  $4\frac{1}{2}$  square kilometers

(approximately 1,000 acres); it is estimated that 20 million acres will become available for distribution. The size of the farm is to vary according to the type and location of the land. The present private owners will be compensated by 4 per cent government bonds; the settlers will be charged for the land but will be given twenty years to pay and the debt will carry no interest. The execution of this law has been impeded by political considerations.

The same law expressly forbids the splitting up among heirs of the new land to be distributed under it; this provision does not apply to land already in private ownership.

### IMPORTANT PRODUCTS

The agricultural products of Turkey are of extraordinary variety, largely because of the widely different kinds of climate, rainfall and soil. They range from winter wheat to oranges, tea and cotton, and from hardy highland cattle and goats to Indian water buffaloes and camels. (See Appendix Tables 4 and 10.)

Cereals occupy about nine tenths of the planted acreage of Turkey. Of these, wheat constitutes the principal crop, being about half of the grain production. Barley comes next with about one quarter; corn, rye and oats are also raised in considerable quantities. While the official statistics indicate an increase in these crops since the early days of the Republic, the figures are uncertain at best, and much of the apparent gain may be a result of better reporting. (See Appendix Table 5.)

#### *Wheat*

Wheat is grown in almost every section of the country, but the main producing regions are the dry plains of the Anatolian plateau, where hard winter wheat is the staple, and the Aegean Coast, where spring wheat is grown. The valorization program which was inaugurated under Toprak has encouraged the marketing of this crop.

The present net export surplus is largely due to the state farms established during the recent war. In the prewar days a department of the Ministry of Agriculture imported large quantities of agricultural machinery with the idea of bringing about its use by the peasants. The intention was to rent the machinery, organizing its use in somewhat the same way as the Soviet Union had done by means of tractor stations or Kombinats. Apparently little headway was made, because when the war increased the demand for grain for the army and civilians, the machinery was concentrated for use on new farms under the Ministry. Thirteen of these state farms, or Kombinalar, ranging in size from 12,000 to 60,000 acres each, were set up on vacant land suitable for dry farming in central and southeastern Anatolia. Their total area is some 750,000 acres; much of the land is left fallow every year. In the crop year 1945-1946 they produced 125,580 tons (of 2,000 pounds each) of wheat and 21,000 tons of barley.

When a member of the team visited one of these farms—that at Bâlâ—six thousand acres of fallow land were being plowed by D4 caterpillar tractors and John Deere multiple-disc plows. Five of the latest model Massey-Harris self-propelled combines were on hand for harvesting the wheat which had been planted. The farm was really a camp; the personnel were living in tents and a small shop for field repairs was under canvas. In this respect the farm differed from some of the other state farms such as those near Konya, where white stucco buildings with red-tiled roofs characteristic of Turkish towns had been constructed. At Bâlâ the manager ran his farm as an American farmer would do, working and living with his men. In most Turkish state establishments there is an "office sector," but apparently not at Bâlâ. The fact that the managers of the state farms are given responsibility for the results obtained, instead of being held to a routine handed down from above, seemed to strengthen the administration of the project and instill enthusiasm in those who worked on it.

A high degree of administrative capacity is shown in moving the machinery over great distances so that it will reach the farm at the moment it is required. Fuel oil, food and other supplies must be available promptly and in sufficient quantity. Even water must, on most of these farms, be carted twenty to forty miles. The efficiency of the management was matched by that of the workers. Young peasants were trained in a short time to operate the most modern American equipment. Prewar tractors which had been almost continuously in use, often both by day and by night, were still in good working condition. Complicated machines like this are often difficult to keep in working order at a time when spare parts are scarce, even in America where good mechanics are plentiful. That they were so well handled in Turkey during the war represents a triumph for the maintenance men and operators.

This is an example of the success which Turks can achieve with good management, under proper conditions and with the right equipment. But it is almost entirely separated from the practices of the small peasants and they could scarcely imitate it. The Ministry of Agriculture in August 1946 ordered that the equipment should be made available for neighboring villages when it was not in use; thus a tractor might be employed for ditching a swamp, and a harvester might even be loaned on occasion. When the pressure for grain production is eased, the government will consider distributing the land to individual farmers and developing a more mixed type of farming. It would seem inevitable, however, that the encouragement of small peasant proprietorship must reduce productivity. The sole function of the state farms at present is to turn out marketable grain; they are not likely to exert much influence on the agricultural technique of the small farmers.

*Rice*

Turkey produces barely enough rice to meet the domestic demand and usually exports none. The rice crop in 1946 was officially estimated at about 35,000 short tons; between 60,000 and 70,000 acres are devoted to rice growing. The crop is consumed almost entirely in the larger cities and along the Mediterranean and Aegean coasts, where it is an essential part of customary menus.

Rice is grown in districts where climate and water supply are favorable. Sometimes irrigation is employed to flood the fields; often rice is planted in the shallow water of natural marshes and stream deltas. The stagnant water of the many small rice fields scattered about the country offers an ideal breeding place for malarial mosquitoes. In consequence, the Ministry of Health has forbidden rice cultivation within 3,000 meters (about 2 miles) of any village or dwelling place. This regulation has aroused resentment among the growers.

*Cotton*

Cotton is the principal industrial crop of Turkey. The estimated value of the crop is even larger than that of tobacco, although tobacco is the leading export of the country. Production has increased rapidly to supply the textile mills established under the Republic, and since 1944 there has been little or no surplus for export. Governmental financial assistance and education in the use of new varieties were largely instrumental in making this gain possible. From 1923 to 1925 the cotton growers produced about 92,000 bales annually; in 1946 they turned out 240,000 bales.

Cotton is grown on the Mediterranean Coast, principally in the neighborhood of Adana, and also in certain districts on the Aegean. Governmental studies in 1940 indicated that in the Adana region alone about 2 million additional acres were suitable for cotton, and that with more irrigation and

improvement in varieties and yields, Turkey could produce more than 2.5 million bales.

### *Tobacco*

Tobacco not only accounts for about one quarter of the foreign exchange earned by Turkish exports, it also is particularly important at present because it is largely sold in the United States and provides dollars, now eagerly sought in all world markets. In 1945—a record year in tobacco sales to the United States—almost 68 million pounds sold in America produced \$59 million, and in 1946, 37 million pounds produced something over \$34 million. Turkish tobacco is blended with the American product in the manufacture of cigarettes and pipe tobacco.

Turkey also processes tobacco both for home consumption and for export. In the crop year 1944-1945 about 33.5 million pounds of cigarettes were made. In addition to nearly 120,000 pounds of tobacco for the Turkish water pipe, or nargileh, the industry turned out minor quantities of ordinary pipe tobacco, cigars and snuff. (See Appendix Table 6.)

Because of the commercial importance of the crop, the state tobacco monopoly has devoted much attention not only to marketing and manufacture but to research in varieties, methods of growing, curing and packing. The tobacco itself is raised mainly on small peasant farms; there are a few large tobacco-growing estates. More than half the crop is grown in the Aegean region, where the leaf is light red or yellow and has a high reputation for flavor and aroma. This variety has no petiole, or stem. Izmir, the main port of the region, is the historical tobacco center of the country, although rapidly developing areas along the Black Sea Coast threaten to make Samsun the principal tobacco-shipping port. Other tobacco-raising regions are the districts about the Sea of Marmara (including Turkish Thrace), the Black Sea region, the eastern region and the vilayet of Gaziantep, on the border of Syria.

### *Sugar Beets*

The growers of sugar beets are entirely dependent on the Turkish Sugar Refining Company (described in Chapter 5), which is the only buyer. The four refineries owned by this company draw their supply from a wide area tapped by road and railway, in order to obtain the advantage of climatic variation in the time of harvest; the milling operation may in this fashion be continued over several months. The railways charge low rates for the longer hauls of beets.

The Sugar Company enforces the rotation of crops; in each district no beets are grown for two years out of every four or five. The rotation specified by one factory, for example, is three years of beets, one of corn and one of fallow. The rotation programs of the various districts are dovetailed by the Company. The Company also supplies the seed, owns the drills for sowing, distributes fertilizer and spraying materials, and supervises the farmers' work during the growing season. Turkey has no natural advantage for growing sugar beets, and the yield per acre is only about two fifths of that in Germany, France or England.

Through this tutelage the Company has lifted the standard of living of thousands of peasants above the subsistence level. The growers receive, in addition to cash, a pound of molasses for every hundred pounds of beets delivered. The Company has taught the farmers to use the tops of the beets and the pulp of the ground roots for fodder, allowing them to take away all they can carry of the waste products. It has encouraged dairying in the neighborhood of the refineries, and operates milk processing and distributing plants.

Sugar production averages about 100,000 short tons a year. It supplies the domestic market, and in some years there is a small surplus for export. (See Appendix Table 7.)

### *Filberts*

Turkey produces more filberts, or hazelnuts, than any other nation, and the crop is third only to tobacco and cereals in



value of exports. About half of the output is consumed by the inhabitants of the country. The nuts are usually shelled before export, and are in demand not only for table use but by the baking and confectionary industries.

The filbert groves are concentrated on the Black Sea Coast not far from the Soviet border. The trees are planted in groups of six or eight to facilitate pollenization, and the groves are usually located on hillsides at an elevation of between 900 and 1,200 feet. In climates suitable for this nut, the greatest danger is blighting of the crop by a late frost; therefore proximity to the sea and the air drainage provided by a slope offer maximum protection. Even in the nearly ideal conditions of Turkey, however, there are occasional bad years. The yield per acre varies widely with weather conditions; the average is 535 pounds (unshelled), but a good crop may yield 900 pounds.

The trees require five years to mature. Production has been rapidly increased in the past, and the possibilities are by no means exhausted. The largest crop on record was 68,800 short tons in 1942, but that of 1946 almost equaled it. (See Appendix Table 8.)

### *Raisins*

Raisins have constituted Turkey's fourth largest export crop. Soil and climate permit grape culture almost everywhere below an altitude of 4,500 feet; the seedless sultanas are produced mainly in the Aegean region. Eighty per cent of the crop is grown in the vilayets of Izmir and Manisa. Yet some of the best varieties come from sheltered valleys of central Anatolia and near the Sea of Marmara.

The yields per acre compare unfavorably with those of California. Between 1934 and 1936 nearly 5 million American seedlings were distributed free. Grades and standards have been established by the government; an institute of vine culture at Izmir conducts research and offers free advice. Though production and exports increased in the prewar years,

there has been a decline since then. Postwar exports have been obstructed not only by the competition of the California raisin growers but by the obstacles to world trade.

### *Figs, Tea, Olives and Other Crops*

Figs are said to have originated on the Mediterranean slopes of the Turkish mountains. There are now about 3 million fig trees, occupying 60,000 acres both in this region and on the Aegean Coast. The climate near Izmir is especially favorable for growing and drying figs; the variety cultivated here is sweeter, has a finer skin and keeps better. Izmir is the center for export; the internal trade in figs is centered at Aydin. About half the crop, or on the average 34,000 tons, was exported before the war, but considerably less has recently entered foreign trade.

Large-scale cultivation of tea is relatively new in Turkey. It was adopted not merely to supply the home market with the one luxury available to the peasants, and if possible to obtain a new source of exports, but to retain the population in a region which was strategically important because of proximity to the Soviet border and was suffering from unemployment and emigration. The political aim was not entirely compatible with the economic one, since the region chosen—that around Rize on the Black Sea—is a small one with poor soil. With the start of this program in 1938, growers received free distribution of seeds and fertilizers for five years, a government credit of a fixed amount for each acre of tea planted, exemption from the land tax for eight years and a government guarantee to buy the crop at fixed minimum prices. The variety of tea chosen as suitable for the region, because it was similar to those grown on high plateaus of India and China, is not of the highest quality. An expanding industry has been built up in this way; whether the resources required might not have been put to better use, at least for economic purposes, is open to question.

Olives are grown on the Aegean and Mediterranean shores.

Olive oil is a staple of the diet in these regions. Estimated production in 1946 was 30,000 short tons, of which approximately 16,000 tons were exported.

Sesame, an oilseed, is widely used within the country and formerly was exported. Its production has fallen off markedly in recent years. Flax, cotton and other seeds are also used for oil.

Licorice, exported from Izmir, is now used in foam fire extinguishers as well as for flavoring, and on this account may enjoy an expanding market.

Opium is an export staple, constituting about 1.4 per cent of total exports by value.

Almost every variety of fruit known to North America is raised. The leading fruit crops are apples, oranges and other citrus fruit, pears, plums, cherries, apricots, quinces and blackberries. Important nut crops other than filberts are walnuts, pistachio nuts, almonds and chestnuts. (See Appendix Table 9.)

Several leguminous crops are grown for fodder and soil improvement; beans are widely consumed and some are exported. Miscellaneous vegetables are raised in favorable regions and are sold in neighboring towns and cities.

### *Livestock and Dairying*

Most of the animals in Turkish agriculture are raised for other purposes than the supply of meat. There are about 18 million sheep, 10 million ordinary goats, 7.5 million cattle, 3 million Angora goats and 1.2 million donkeys. There are almost as many water buffaloes as there are horses—less than a million of each. There are more camels than mules, though not a great many of either. Pigs are kept only by non-Moslems for their own use, the eating of pork being forbidden by the Moslem religion. (See Appendix Table 10.)

Sheep are raised mainly on the central uplands. There are few large flocks. Most of the sheep belong to small peas-

ants, and those of a single village, seldom numbering more than 150, are tended by the village herdsman. Sheep provide wool and milk, and are occasionally killed for local meat supply. Sheep's wool is used mainly for making rugs, though some is exported. Goats likewise are raised for hair and milk. Mohair, from Angora goats, is largely exported. Turkey is the second largest grower and the largest exporter of mohair, though the foreign market for it has recently declined. The goats are raised on the poorer soil and more arid regions of central Anatolia.

Oxen, buffaloes and camels are employed as draft animals; female buffaloes and camels as well as cows are milked. There are but few herds of beef cattle, and these are largely in Thrace and the extreme northeast.

The marketing of whole milk is almost unknown in Turkey; fresh milk is seldom drunk except by peasant families who have obtained it from their own animals. Butter is the main dairy product; next in volume are cheese and yoghurt. A relatively small amount of powdered milk has recently been manufactured. (See Appendix Table 11.) About as much milk is obtained from sheep, goats and water buffaloes as from cows. Buffalo milk is richer in butterfat than cow's milk.

Other important animal products include hides, wool, eggs and honey. (See Appendix Table 12.)

## Chapter 4

### TRANSPORTATION AND COMMUNICATION

EVERY POSSIBLE ADVANCE in Turkey, whether for development of agriculture and industry or for improvement of health, education and other social and political goods, depends on transportation. Yet no part of Turkey's equipment is more backward than her railroads and roads. As the author of this report has written elsewhere:

Within the political boundaries of Turkey are a hundred "little Turkeys," each economically isolated from the rest and usually producing only a fractional part—one-third to one-tenth—of its potential. Obviously the strength of Turkey cannot approach the sum of its parts until they can be added together. Until this be done no surplus will be produced as an increment to the national wealth, no local industries based upon such surplus will be possible, no purchasing power will be created to enable expanded and diversified consumption, and no substantial improvement in the standard of living can be expected.<sup>1</sup>

If anyone unacquainted with Turkey and her history should look at a map of the country in order to see, for example, a picture of her railway system, he would find a few red lines which appear to have no order or design. A railway map of a highly productive country shows a network with trunk or main lines and branches. There are customarily direct connections between important cities and railway centers at ports and in the interior. Judged by such expectations Turkey has, properly speaking, no railway *system* at all.

There are historical reasons for this. Three quarters of the perimeter of the country is seacoast, and on the rich coastal plains to the west or south most of Turkey's economic

1. Max Weston Thornburg, "Turkey: Aid for What?," *Fortune*, October 1947, p. 172.

activity in the past has originated and most of the population has lived. Here are grown the main export crops, here are the ancient trading ports. Commerce and travel was largely by sea about the coast or to neighboring islands. The sparsely settled and rugged interior used to be regarded as a region to be traversed only on the rare occasion when there was need to do so. Emissaries from the Sultan sometimes had to visit distant points, or armies might march across the country.

Such routes and trails as were marked out in this fashion were influenced by the terrain more than would be necessary for a newly built road or railway. The coastal regions on the north and south are narrow strips separated from the central plateau by mountain ranges. Even the broader coastal plain to the west is cut up into valleys by rugged spurs extending toward the Aegean. Routes of travel followed the winding river valleys to the interior. There are a few conspicuous gaps in the mountain ranges elsewhere through which the old roads naturally found their way—for example, the Gülek Pass (Cilician Gates) of the Taurus in southern Turkey, and Bitlis Gorge in eastern Anatolia. Through these gorges Xenophon and Alexander the Great passed, on their famous marches.

### *Trade Routes Needed*

The Berlin-Baghdad railway, projected by Germany, was planned not as a means of serving Turkey's need for internal transport but as a way of crossing the country; and it was as much a strategic concept as a commercial venture. The Russian-built line in the east was also conceived mainly for strategic purposes. The Turks themselves, in deciding where roads and railroads should go—and, be it noted, where they should not go—were under the rule of men with military traditions who thought of them as routes for armies rather than for trade. Armies, in Turkish experience, were quite as likely to be composed of invaders as of defenders of the country. The military mind has been slow to appreciate the

fact that there is a broader strategic concern with transportation—the building of an economically powerful nation capable of defending itself by virtue of its high productivity.

The transportation facilities of Turkey—railways and roads—thus were never planned and conceived as a system serving the improved agriculture, the industries or the mines which the Republic has set out to develop. What needs to be done is therefore far more than improvement in detail, such as supplying better roadbeds and rolling stock for the existing railways, or broadening and paving roads. Those in charge of transportation will have to adopt the attitude of an engineer laying out a new industrial plant, and planning for the carrying of materials and products within it. They must design an intricate conveyor system for the varied economic processes of the new Turkey which it is their purpose to build, and which is already partly in being. Such of the existing facilities as conform to this system will naturally be utilized, and not all the routes will be new, but the functional character and the required capacity of each part of the system, old or new, must determine its nature and consequently should govern the expenditure on it of money, material, labor and equipment.

### RAILWAYS

There are about 7,500 miles of railroad lines in Turkey, approximately 7,050 of which are owned and operated by the state and about 400 miles privately—by the Southern Railway Company. The latter is a branch of the French railway stemming from Aleppo in Syria, where connections with Mosul, Lebanon, Palestine and other points to the south may be made.

If one were entering Turkey from Europe in a train bound for Baghdad, he would follow the single route from Istanbul easterly to Eskişehir on the western edge of the central plateau, then in a general southeasterly direction along the plateau and north of the Taurus Mountains, at length turning

south through a gap to Adana on the coastal plain near the eastern end of the Mediterranean, thence to the French railway, one branch of which extends along the boundary between Turkey and Syria, and finally to Mosul in Iraq—the rest of the route following the Tigris River to the south.

This route—the present form of the Berlin-Baghdad railway originally projected by the Germans—may be regarded as the main trunk line in Turkey. It passes through the third most populous region, only the density of population on the Aegean and Black Sea coastal plains being greater. It is connected with the Aegean plain by three shorter lines extending from it in a general westerly direction.

The other main line, branching off from this one at Eskişehir, runs east to Ankara in central Anatolia, and thence meanders<sup>2</sup> in a general easterly direction until it crosses the Soviet border, connecting with Tiflis in Soviet Georgia and, by another Russian route, with Iran. Two shorter lines connect this one with the Black Sea to the north. Two lines to the south connect it respectively with the first main line near Adana, and with an east-west route between Adana and cities in the southeastern part of Turkey. There are no other important railways in the country.

Most of the railroads were originally built and operated by foreigners for their own purposes—not only the Germans, but also the British, the French and even an American private company. They were allowed to run down badly by their owners, who expected the new Turkish Republic to take them over, as it did in 1934 by purchase under the policy of Etatism. In the task of converting them into a unified and efficient system it was handicapped not only by the need to rehabilitate the existing rights of way and rolling stock and to construct new connecting lines, but by the fact that there was some diversity of gauges. The Railway Administration itself was relatively inexperienced because of previous re-

2. The river Menderes (ancient Maeander), from which we get this word, is in southwestern Turkey, emptying into the Aegean Sea near the Dodecanese Islands.



liance on foreigners and non-Turkish Ottoman subjects. After 1939 the impossibility of importing new rails or equipment presented a further obstacle, and a heavy increase in traffic over important parts of the system, due both to military requirements and to the new industrial development, demanded coal and ore in large quantities.

### *Railway Breakdown*

The desperate efforts to move the nation's traffic over the long, circuitous, single-track lines have been increasingly frustrated by worn-out rails, the shortage of locomotives and cars and the bad condition of the existing equipment. Freight train kilometers decreased to 6,598,000 (4 million train miles) in 1945 from almost double that number in previous years, and passenger train kilometers on main tracks to 1,039,000 from 1,847,000 in 1942 (in train miles, to about 650,000 from 1.1 million). Meanwhile costs mounted. In spite of increased rates and nearly doubled gross revenue per mile, the net operating revenue of the state system by 1944 was less than a quarter of that in the previous year and the operating ratio had steadily risen from 63 per cent in 1941 to 94 per cent.

The price which Turkey has paid for devoting so much of her resources to new manufacturing facilities before she had put her railways into good condition is beyond computation. Largely because of the demand of the Karabük steel mill for coal and ore, in 1946 thousands of tons of cereals had to be left rotting in the central plateau, served only by the same railway which carried the industrial materials. Cement plants, though of inadequate capacity to supply existing demands for roads and buildings, could not operate more than part time because of lack of coal. Power stations, already so overloaded that the supply of electricity is not sufficient for the establishment of needed light industries, were also starved for fuel. Such heavy costs of mistaken planning appear on no balance sheets at Karabük or Ankara.



STORIED MT. ARARAT, on which Noah's Ark is supposed to have landed, looks down from its 17,000-foot height on a modern Turkish soldier riding a lonely patrol.



*Present Program for Improvement*

In 1946 a drastic program to remedy this situation was begun. American railway experts were engaged to aid the Railway Administration in rehabilitating and operating the system. A purchasing mission contracted for new equipment in Europe and America. About a hundred new locomotives and several thousand freight cars were to be delivered, beginning in 1947. About 150 million liras (\$53 million) is being devoted to maintenance and reconstruction of the railways themselves, including new lines and the conversion of some old ones to standard gauge.

A plan has been approved for about 1,400 miles of completely new construction, scheduled for the next fifteen years. The estimated cost is 800 million liras (about \$280 million). Members of the Twentieth Century Fund team were unable to discover whether the routes chosen and the expenditures contemplated were based on planning coordinated with other programs of development and with Turkey's present needs. Presumably the equipment and materials to be imported will have to be financed by foreign loans.

### ROADS

More attention has been paid in the past to railroads than to roads, though the latter are, if possible, even more badly needed, and those which exist are in worse condition.

According to the Minister of Public Works, there are under his jurisdiction about 15,000 miles of roads in the country. Only 380 miles of these are surfaced with asphalt or stone, and 150 miles are treated with tar. Another 6,800 miles of road are surfaced with waterbound macadam and reputed to be in fair condition. The rest are either badly deteriorated or unsurfaced and merely graded, with culverts and bridges. Thus only about half the national road mileage is capable of being traversed with safety by ordinary motor vehicles, and almost none of this is in the country districts,

except for a few military highways. Of the inferior part of the centrally administered road system, 4,650 miles are listed by the government as "passable, though traveling is difficult." The remainder, besides another 12,000 miles under local jurisdiction, are "passable by carts during the dry season only." The Turkish cart wheel is narrower than those used in western Europe, and cuts up the roads accordingly. A road over which not even an oxcart can travel except in dry weather is a road only by courtesy.

In 4,000 miles of travel over roads in nearly every region of Turkey, the author counted eleven power-driven road rollers. Four of these were abandoned by the roadside, and apparently were stripped of accessories. Of the remainder, only one was working on an important highway job—in northeastern Anatolia. The other six were in use on a single fifteen-mile stretch of road on the southwest coast, which ran through a completely barren district to a local seaside resort, consisting of perhaps twenty houses inhabited only during the summer months and owned largely by local politicians.

During this journey, it was a common sight to see a group of men squatting by a pile of stone, and breaking it up into assorted sizes with small hand hammers. Turkey has had virtually no modern road-building equipment. In view of such methods and Turkey's limited supply of manpower, it would seem that some finished road must fall into disrepair for every new mile built.

### *Administration of Roads*

At the founding of the Republic in 1923, supervision over the roads was assumed by the Ministry of Public Works, but from that date to 1928 actual building and maintenance were delegated to the vilayets, or provinces. A road tax enacted in 1929 went partly to the national government and partly to the vilayets; despite a later doubling of the tax and an increase of the vilayets' share, it is questionable how

much of the proceeds have been spent by them on roads. The national government has, according to official report, spent 68 million liras since 1923 on construction, maintenance and bridges. This comes to an average of about 3 million liras a year (slightly more than \$1.5 million). This sum, to cover the road needs of the whole of Turkey, is sufficient evidence of official neglect, especially when one compares it with the relatively huge investments in mining and manufacture listed in Chapter 5.

The Ministry of Public Works employs a number of highly trained highway engineers. Other departments of the government, including the army, contain men educated abroad in road and bridge building. Most of these men, however, lack the practical experience necessary to lay out and administer a nation-wide road system, and because of their subordinate positions, their influence on general policy is negligible. It is therefore not strange that while there have been endless plans for building and maintaining adequate roads, they have come to little or nothing.

It has been argued that since there are only 10,000 motor vehicles in Turkey, and these are mainly in the cities, few improved roads are required outside the urban centers. The small number of trucks and cars is not surprising, in view of the limitations which roads place on their use. If they should venture far out of the cities in most directions, they probably never would reach their destinations. Not many individual Turks will probably own motor vehicles for some time to come, no matter how good the roads may be, but transportation by motor truck would be economical and is badly needed throughout the nation. In other countries it has followed the building of passable roads. Even today privately owned motor trucks haul freight between Istanbul and the extreme eastern part of the country, making use of military roads east of Erzurum, and there is some seasonal trucking and bus service in many parts of Turkey.

*Road Planning for the Future*

A promising new start was made on the road problem in 1946. In that year an Inter-Ministry Road Conference was held to draw up a program. It reviewed the existing roads from the point of view of national defense, economic needs and cultural needs. On the latter two counts, it sought answers to the following questions:

1. What road communication should be established with neighboring countries?
2. What are the centers of population and agricultural production which should be interconnected?
3. What roads will be required to feed the railways?
4. What roads will be required for exploitation of mineral resources?
5. What roads will be needed for manufacturing developments?

A program based on these and other considerations was drawn up. To the Ministry of Public Works was assigned direct charge of about 15,000 miles of roads, the rest being left to the vilayets under technical specifications prepared by the Ministry.

The 1947 budget allotted 25 million liras (about \$9 million) for road purposes. It is encouraging that the Minister of Public Works asked for no more than this sum, on the ground that with his limited staff and the enormous amount of preliminary work required, this is all he could spend properly in the first year—a type of judgment as commendable as it is unusual in Turkey. Each of the 63 vilayets was to draft its own road budget, depending on road taxes as far as they would go, and drawing on the Public Works Ministry for any necessary extra funds.

As it turned out, the new program was timely, for \$5 million of the United States military loan was subsequently allocated for road purposes, most of it for equipment, to be delivered in 1947. In addition, American experts are work-

ing closely with the government to set up an administrative organization competent to direct the work in its early stages. Other American technical assistance is being provided.

### *Requisites of Planning*

One of the first tasks in developing the new program must be to establish criteria for guidance of those who make studies of particular projects, and for determination of priorities. These studies must take into consideration the type of road needed for each purpose in view. They must have regard for conditions of soil, climate, available material and the service of the road. They must see the road system as part of the whole network including other means of transportation—by rail, ship or air. Even oxcarts or pack animals have their special uses.

Those who do the planning and determine the priorities should take pains to serve real and existing needs rather than doing the more spectacular jobs first. A modern motor highway between Istanbul and Ankara might not for years carry enough traffic to pay for its construction, but a simple all-weather road, adequately maintained, between a fruit and sugar growing area and a preserving and shipping point might in one season return more foreign exchange than would be needed to pay the whole cost of the road and the vehicles which used it.

The secret of growth from small beginnings, which in most instances has never been learned by Turkish planners, could be applied without waiting for expensive equipment and experts from abroad; it could greatly supplement such foreign aid as is available. For instance, a simple rock crusher, to be driven by two oxen, could be produced at the Karabük steel plant cheaply and would make unnecessary the labor of ten men. A larger one, driven by a simple oil engine, would save the manpower of a whole village in each vilayet. An elementary concrete mixer to go with it would lay off another village. Some of the men could be used in factories,



to make these things; others, raising more food, could send it to consumers over the new roads. With the proceeds they could buy lumber to build new houses, and thus start up a lumber mill idle for lack of a market. It is such elementary improvements, repeated in thousands of instances, which before long build up a prosperous economy.

The road program is vitally dependent upon the attitude adopted toward it by the government. There must be determination at the highest levels to see the job done, and done efficiently without political interference or patronage. Here is where a start must be made if the real intention is to benefit 20,000,000 Turks and not just 20,000 state employees. Seeing the job through might involve retrenchment of "five-year plans" for other and less essential projects, in order to provide the necessary materials and manpower. But the road program will be a test of Turkey's real intentions about economic development.

### SHIPPING

For many centuries a large part of the nation's domestic trade has been carried in small craft plying the seas about the perimeter of the Anatolian Peninsula. From harbors on these coasts, exports have been shipped to foreign nations, and imports have been brought to them in return. During the supremacy of the Ottoman Empire, Turkey was a great maritime power, with a strong navy and an important merchant marine. But many years ago Turkish sea power declined, and between World War I and 1946 there was virtually no tonnage under the Turkish flag except the coast-wise ships. The ports are not equipped for the building of modern vessels, and even their facilities for service of shipping are deficient.

In the early years of the Republic, the government created the Deniz Bank, a state institution, to foster a revival of the nation's merchant fleet. Administration of shipping was transferred in 1939 to two new bodies—the State Shipping

Board and the State Ports Control. Not until 1946 was any appreciable progress made in the acquisition of ocean-going ships. In that year a government purchasing mission visited Europe and the United States and bought seven vessels of from 3,000 to 5,000 dead-weight tons. Orders were placed in Italy for six ships of 6,000 gross tons each, and for two of 2,000 gross tons.

The state has, however, operated a coastwise fleet for a number of years. Privately owned vessels are not allowed to transport mixed cargoes or to carry passengers. According to government officials, this discrimination arose because private owners would not serve the public convenience by regular schedules, but would call at ports only when profitable cargoes were assured in advance. This obliged the state to maintain regular service for freight, passengers and mail, leaving the more profitable freight to the private vessels. The larger privately owned ships are also subject to pooling control by the state and to restrictions on the purchase of fuel oil.

It would appear that adequate service might have been achieved by state regulation and the writing of obligations into franchises for private operation. This would not have handicapped an industry which the state was trying to build up. Some relaxation of the discrimination was introduced in 1946. For example, ships under 600 tons were allowed to make one voyage abroad with mixed cargo for each two trips within Turkey. It is possible that the government's discouragement of private shipping may have cost Turkey the opportunity of acquiring, through private operators, a substantial tonnage which became available at the close of the recent war.

### *Istanbul and Sea of Marmara Ports*

Istanbul is one of the most superb natural ports in the world. The outer harbor is again becoming busy as a port of call for merchant vessels under every flag but Turkey's.

Its commercial waterfront, however, is poorly arranged and equipped for modern freight handling, in which demurrage charges are an item of consequence. The disadvantage can be remedied when real economic development of the country makes headway, for near by there are deep channels with ample shore space for warehouses, tracks, repair shops and shipyards. The shores of the inner harbor, in the shelter of the Golden Horn, which once were lined with shipways and service quays, now are bordered with factories for the manufacture of soap and leather, and with warehouses for coastwise trade. Net tonnage entering and leaving this and other Sea of Marmara ports shrank almost steadily from about 15 million in 1920 to less than 7 million in 1940. (See Appendix Table 13.)

#### *Mediterranean and Aegean Ports*

Turkey's second port is Izmir (formerly Smyrna) on the Aegean. Its natural advantages, also, are matched by few harbors in the world. Out of it flow the greater part of Turkey's agricultural exports. Like Istanbul, it is not developed for modern sea traffic. The main avenue of the city runs along the waterfront, leaving no room for tracks, warehouses, repair and supply facilities. Elsewhere on the shores of the harbor, there is plenty of room for such development. There is an ample wall-protected anchorage.

Iskenderun (also called Alexandretta) is now again part of Turkey. It serves the eastern Mediterranean Coast and the rich agricultural area of the Cilician plains between it and the Taurus Mountains. It is not too well protected from the weather, however, and ships lying there must frequently move across the bay to take shelter in the better protected but undeveloped harbor of Yumurtalik. Whatever the political or strategic importance of Iskenderun, it might be wise to improve the better harbor.

Several surf ports along the Mediterranean west of Iskenderun are of some usefulness for special purposes. Of these,

Mersin, the terminus of one of the earliest railways built in Turkey, was a busy export point for chrome, copper and other ores during the recent war, and it also taps the Cilician plains from the western side.

The Aegean and Mediterranean ports had a traffic of between 4 million and 5 million tons annually in the twenty years intervening between the two world wars.

### *The Black Sea Ports*

On the Black Sea, there are several ports enjoying reasonably heavy traffic. Samsun is the principal northern shipping point for Turkish tobacco, but is not yet developed for general trade. Trabzon, where Xenophon took ship with the remnants of his Ten Thousand in the days of ancient Greece, is being improved with modern facilities. Zonguldak, from which coal is shipped, is unsheltered. Ereğli, at the western end of the coal region, is a better harbor, and extensive improvements have been planned there. It is a possible center for factory and forest products. Halfway between Trabzon and Samsun lies Giresun, a small port from which hazelnuts are shipped. Rize, east of Trabzon, has a growing traffic in tea, raised in the surrounding district, which also may become an important fruit region.

Sinop offers some protection from winter weather; detailed plans have been made to convert it into a modernized shipping point, but construction work has not yet started. At Amasra and Inebolu breakwaters are being built.

Immediately after World War I, the Black Sea ports had barely half the traffic of Istanbul and the Marmara ports, but by the middle of the decade their trade tonnage had become larger than that of the old capital, exceeding 10 million.

### AIR TRANSPORT

Turkish State Airlines, organized in 1937, has a monopoly of civil aviation in Turkey. There are two or three flights daily between Ankara and Istanbul, and flights either every

day or on alternate days from each of these cities to eastern and southern Anatolia. Lack of meteorological instruments and communication limits winter flying, but this lack is being overcome. The pilots are Turkish, and are well trained and disciplined. Safety regulations are strict. Planes used include military types obtained during the war, and a substantial number of United States C-47 planes. Rates are reasonable, and air transport has gone far to remedy previous lack of passenger transportation.

Foreign airlines maintain service between Istanbul and Europe, and connect both Istanbul and Ankara with eastern Mediterranean points.

The national airline, like those in many other countries, is not self-supporting, and is heavily subsidized for expansion and pilot training.

#### MAIL, TELEPHONE, TELEGRAPH AND RADIO

Turkey's communications have been hardly more adequate than its transportation, but some changes for the better have occurred and more are in prospect. Airmail has greatly facilitated the dispatch of letters. The Postal, Telephone and Telegraph Administration in 1946 made contracts for extensive improvements in internal wire and wireless services, and also for installation of two 165-kilowatt radio stations—one at Istanbul and one at Ankara—which will enable direct communication with the United States. They should be in operation by 1949.

No deferred or other reduced rates have been available for outgoing messages, so that the service has been costly for business concerns. Only recently a reduction of 50 per cent was made for the press.

## *Chapter 5*

### MINING AND MANUFACTURE

#### MINERAL RESOURCES

TURKEY'S MINERAL RESOURCES, like her products of food and fiber, constitute a varied and rich store of raw material for industry. She has coal, lignite, iron, copper, sulphur, chrome and many other ores, the full extent of which is not yet proved. These resources are, for the most part, in an early stage of development and have contributed relatively little to the well-being of the Turkish people.

Though the existence of such deposits has been known from the earliest times, and some have been mined, the first systematic exploration was made by the Germans in the 1920's. Until recently German geological and mineralogical maps constituted the only scientific source of information. But Germany was not interested in assisting the Turks to extract the minerals for Turkish use; it wished the ores for its own industry. The Turks, on the contrary, were particularly concerned, after the establishment of the Republic in 1923, to end their "colonial" economic status as a source of natural riches for other nations. Their distrust of foreign greed for their natural wealth, springing from the days of the capitulations, was increased when alien oil interests after World War I took from them all but a small royalty in the famous Mosul oil. The French and Italian companies who held pre-World War I concessions in the Zonguldak coal field were so inefficient that the Turks believed they could not do worse by developing their own resources. The result was that they reserved most of their minerals without important foreign or domestic exploitation, pending the construction of a home industry which could utilize the output.

*Legal Obstacles to Development*

Turkish mining laws reflect this attitude. All underground deposits are the property of the state and cannot be conveyed. The government may issue exploration permits for two-year periods. But if the prospector discovers any deposit worth mining, the government is not obliged to give him the right to exploit it. It may issue an exploitation permit (or concession) for a period up to sixty years, provided the concessionaire undertakes specified obligations for development. But it is not compelled to do so. It may instead turn the project over to a state establishment, after compensating the discoverer for his expenses. The Council of Ministers, which has discretion in this matter, is charged with responsibility for "protecting the national wealth." No owner or trustee of private capital is likely to risk the time, effort and money necessary to embark on mining under such conditions.

Nor is this the only obstacle. The concessionaire must pay taxes which may turn out to be large in comparison with the value of the deposit. These include a "fixed tax" of a tenth of a Turkish lira per hectare annually and a "proportional tax" ranging from 1 to 20 per cent of the nominal value of the product, which is calculated by deducting the costs from the sales prices. The joker in this proportional tax or royalty is that the nominal value on which it is levied is computed *in advance of development*. The actual quality and extent of mineral deposits, the costs of extracting and processing them, and the prices for which they can be sold, are notoriously uncertain. New mining projects are therefore highly speculative. Advance computations can yield little more than estimated or even arbitrarily fixed figures. The result is that the question of how much the concessionaire must pay depends ultimately on the Minister of National Economy and the Council of Ministers. The private owner of the land, if any, receives the fixed tax and one fifth of the proportional tax.

In addition, mineral industries are subject to the numerous

business taxes, including military tax, income tax, excess profits tax, emergency tax, transaction tax and building tax.

If the Turks had designed a system to prevent private mineral development, whether foreign or domestic, they could scarcely have done better. This was, indeed, their policy.

### *State Exploration Under MTA*

The void left by the virtual exclusion of private prospecting interests has been filled, up to the point of actual development, by the Mineral Research and Exploration Institute, known as MTA. This agency was organized in 1935 under the Minister of National Economy. It followed the Russian model and was set up with the guidance of Soviet experts. It not only conducts general geological and mineralogical surveys, but finds and tests specific deposits, maintains laboratories for analytical and research work, conducts a training school for technicians and mine foremen and provides expert consultants for concerns (mainly state owned) engaged in actual mining operations. There is nothing like it in the United States, where these functions are divided among various public and private agencies. Before its foundation, there had been special state agencies for exploration and development of petroleum, gold and other minerals, but the real work of carrying on the discovery originally begun by the Germans did not make headway until MTA took it over.

The present Director General of the Mineral Institute is a Turkish graduate of a leading American mining college with several years of experience in United States mines. Field parties include competent experts trained in America and Europe. During the past ten years the Institute has published more than 4,000 reports on particular mineral deposits. Its journal has printed about 200 articles, and it has brought out 20 books. A geological map of Turkey on a scale of 1/800,000 has been issued, and a more detailed map is in



preparation. Other projects in hand are a topographic map, a mineralogical map, a map of underground waters and a map showing important mineral and thermal springs. An aerial survey is under way. The program of each of these projects is blocked out in advance, with an assignment for each year, until it is finished. MTA is one of the most efficiently managed agencies in the whole Turkish economy.

### *State Development Under Eti Bank*

Eti Bank, as noted in Chapter 2, was created to finance and carry on mining operations, and almost all the mining organizations of the country are under its management, directly or indirectly. It has set up seven main "Exploitation Establishments," called respectively Ereğli Coal, Western Lignite, Divriği Iron Mines, Turkish Copper, Eastern Chromite, Keçiörlü Sulphur, and Coal Sales. In 1947 there were also in process of organization Bolkardag & Keban Lead Mines and Murgul Copper Mines, besides other projects not yet far enough advanced to warrant separate establishments. The nominal capitalization of the establishments, which means little except as an indication of their relative importance as objects of expenditure, ranges from 52 million liras (\$28.5 million) for Ereğli Coal and 25 million liras (\$13.7 million) for Turkish Copper down to 1.3 million liras (\$715,000) each for Eastern Chromite and Keçiörlü Sulphur.

### *Exploitation Establishments*

These Exploitation Establishments are separate legal entities like American subsidiary corporations. They are owned by Eti Bank, and though each has a Manager and an Administrative Committee corresponding to a President and Board of Directors, important questions are referred to the Administrative Board of Eti Bank.

More significant than the policy control is the method of financing, which relieves the management of any establish-

ment of responsibility for the solvency of its enterprise, except in theory. The establishment receives its initial capital, and such additional credits as may be necessary, from Eti Bank. Eti Bank fixes the prices, makes the sales, and on its books credits the establishment with the proceeds. Prices are not the result of competition in the market, but reflect whatever policy the parent bank desires to pursue, involving subsidies in some cases, and arbitrary transfers of gain or loss from one state agency to another. Though each establishment prepares a yearly statement showing its profit or loss, the profit, if any, remains in Eti Bank since the latter has collected the payments for the sales and merely distributes to its subsidiary the money necessary to cover its expenses. If there is a loss, this is borne by Eti Bank as a result of the same process. Profit and loss are thus merely a matter of book entries, do not indicate the degree of efficient operation, and are without much effect on the survival, the contraction or expansion or the managerial practices of the subsidiary concern. All governmental agencies, including Eti Bank and its subsidiaries, are immune, by law, from public accounting supervision.

Under these conditions, financial incentives can have little or no influence on management. Whatever efficiency it achieves must be due to training, experience, skill, zeal and the application of engineering standards characteristic of a high degree of industrial development. While some enterprises do better than others, the usual level of performance leaves much to be desired.

The Exploitation Establishments may, under Turkish law, be converted into private corporations by the request of the government and the decision of the General Council of the bank, but in this case, the stockholders must be Turkish and the shareholdings personal. No such action has been taken.

*Coal*

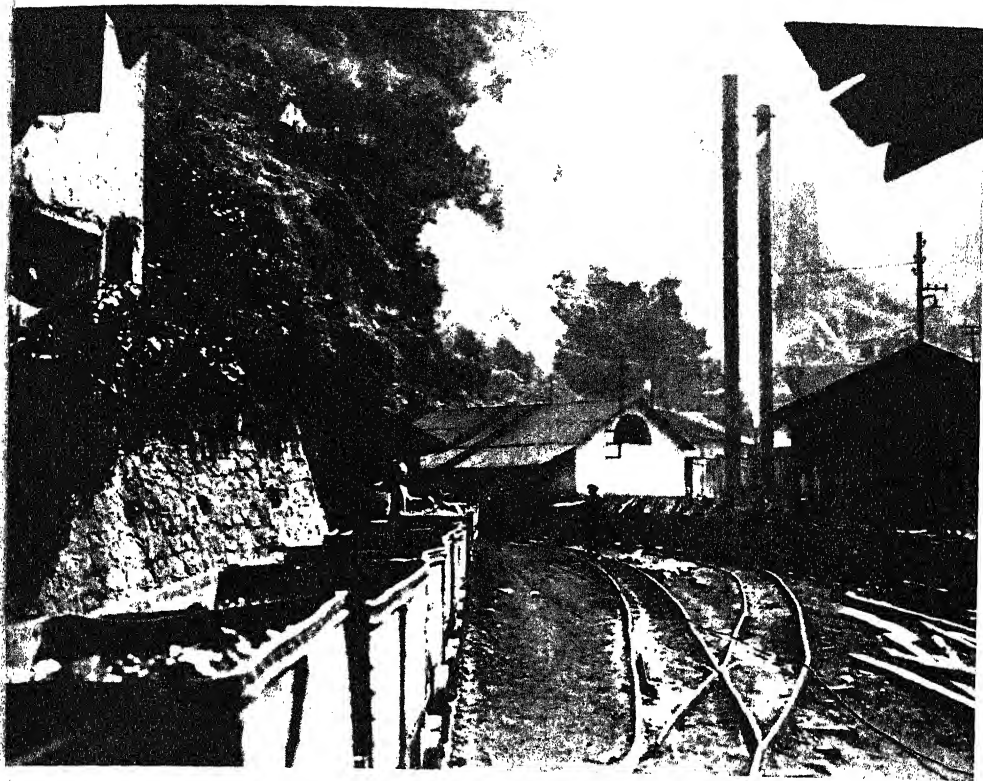
Coal is the chief resource of Turkey for mechanical energy. She has no producing oil fields; water power is undeveloped. Fortunately, there lies along the coast of the Black Sea a vast field of bituminous coal of high quality, with adequate sites for ports. This region, known as the Zonguldak basin, extends between Ereğli and Zonguldak. Though the existence of coal in the area has been known for over a century, the richness and the depth of the deposits were not suspected until Germany examined the field during World War I. Its reserves have been estimated all the way from 300 million to a billion tons, but in any case, they are large enough not only to supply a rapidly expanding need for fuel on the part of Turkish industry and individuals but also to support a profitable export trade.

In July 1947 MTA engaged a well-known American firm to determine the depth and thickness of the coal veins by core drilling throughout an area approximately a hundred miles long and fifteen miles wide. When this is finished, more accurate estimates of the reserve will be possible.

Until 1940, when the state expropriated them, the coal mines were owned by Italian and French companies; in that year their output was 3 million tons. These companies worked only the thickest and most profitable seams, without the use of modern methods or equipment. They left many seams partially developed, and when the state took over the properties they were in extremely bad condition.

*Ereğli Coal Establishment*

The state-owned Ereğli Coal Establishment expected to increase the output and reduce the cost; and indeed there was plenty of room for improvement. Eti Bank reports a total investment in the basin of nearly 100 million liras (\$55 million). Some effort has been devoted to cleaning up the underground workings, and a little progress has been made in providing modern hoisting equipment and other badly



INDUSTRY IS BUILT ON COAL and these mines in the Zonguldak basin are the country's largest.



needed facilities on the surface. Unfortunately, however, most of the money has been spent on elaborate buildings for administration, employees' recreation parks, shops, garages and other accessories which have no direct relation to the elementary necessities of mining. The result is that in seven years of state operation production grew only from 3 million to 3.8 million tons, and, so far as can be judged, the cost increased markedly. This figure, moreover, corresponds to the production of unwashed, or run-of-mine coal, which contains a large proportion of slate and other unsalable material. Statistics of actual shipments indicate that only 68 per cent of the run-of-mine coal has been marketed.

Production per man in an eight-hour shift was a little under a half ton before 1940, and has averaged less than that since state operation was installed, though it did rise slightly to .51 ton in 1946. In Pennsylvania, mines with veins of similar depth and thickness average about 5 tons per man per shift, or ten times as much. American mines equipped with modern machinery have considerably higher efficiency.

Differences in accounting methods as well as fluctuating exchange rates make estimates of cost in dollars uncertain, but the figures, such as they are, show that whereas under foreign ownership the cost per ton of *unwashed* coal ranged from \$2.40 to \$3.50, it has tripled under state ownership to between \$8 and \$9. While daily wages have nearly doubled (\$.68 in 1940 to \$1.24 in 1946), this can account for only one third of the increase, since wages comprise less than one half of the total cost. The rest of the burden comes from higher administrative expenses, charges for additional development (most of which is above ground and contributes nothing to actual production) and higher costs of material—the last named being the least important. (See Appendix Table 14.)

So high is the cost that the government has had to sell the coal at a substantial loss in order to make it available to

Turkish railroads and industry. Exports, which ran between 200,000 and 750,000 tons a year under private ownership, have disappeared entirely, partly because the coal could not compete in foreign markets without government subsidy, and partly because domestic consumption, slender though it is in comparison with potentialities, presses hard on the inadequate output. (See Appendix Table 15.)

### *Wasteful Management*

The net result is that the Turkish people, through unduly high prices on textiles and other necessities, have had to subsidize an inefficient exploitation of their largest and richest resource of heat energy, and have got in return an insufficient supply for their own use, besides sacrificing an export market hungry for coal, from which a good deal of badly needed foreign exchange might have been earned. Whatever excuse the management may have on the ground of inexperience or lack of training in mining operations, it cannot be absolved from squandering a large part of the funds at its disposal on show and on an inflated staff above ground. In engineering terms, it has not improved on the performance of exploitative foreign owners, and in financial terms, it has done much worse than they.

Various plans have been advanced for reorganizing the Zonguldak coal operation. Several foreign concerns which specialize in coal mining have been invited to submit plans for its rehabilitation, but so far, no arrangement has been concluded. According to report a well-known American engineering firm has been employed as consultant and to aid in selecting and supervising the contractor who undertakes the work. The new five-year plan contains an estimate by Eti Bank of 320 million liras (\$113 million) for this purpose.<sup>1</sup> Neither Turks nor foreigners, however, would be justified in allotting money or equipment to the Ereğli Establishment

1. See Appendix 3 for other estimates in the version of the new five-year plan prepared by the Turkish government in connection with an application for an American loan.

without the assurance of a competent direction which would be held technically and financially responsible for results in mining coal and would not be permitted to use its funds for political purposes.

### *Lignite*

Turkey has extensive resources of lignite, which has about half the heat value of coal. These exist chiefly in central and western Anatolia. In seven deposits so far examined, MTA estimates conservatively that there are reserves of 165 million tons, and it is believed that in numerous other deposits there are tremendous quantities.

Because of its much lower heat value, lignite could not economically compete with Zonguldak coal if the supply of the latter were adequate and efficiently mined, and if transportation were not overburdened. Three lignite deposits, however, have been developed for local use of industries and the adjoining railway, because of shortage of coal and the overloaded railway system. Production has increased from 78,000 tons in 1938 to more than 500,000. Cost per ton, expressed in dollars, has risen from \$2.65 to \$7.80. (See Appendix Table 16.) This excessive cost might be reduced by modern methods and equipment, but even in that case lignite could hardly be utilized economically except at the locality where it is mined.

Turkey expects to use lignite for power generation at the mine mouth, for manufacture of nitrogen and for local industries. It also wishes to substitute lignite for the present widespread use of wood and dung as a source of heat, in order to stop the drain on the forests and make the dung available for fertilizer. Eti Bank in its current five-year plan proposes to spend 25 million liras (\$8.8 million) on lignite mining in order to increase the output from the present half million tons to one and one half million.<sup>2</sup> There is no question that ultimately the use of lignite may be of great value

2. See footnote on page 98.



in certain localities, but it seems hazardous to embark on so large an expansion before the cost of extracting both coal and lignite has been reduced and transportation facilities are improved, so that the relative costs of heat energy from the two fuels in specific regions can be more closely estimated.

### *Iron*

Iron ranks next in importance to coal in building basic industry. Some steel mills in the world rely on imported ore, but if deposits exist in sufficient proximity to coal of the proper grade, unusually favorable locations for basic steelworks can be found, as is demonstrated in the Ruhr, Gary and South Chicago.

Turkey has a number of iron ore deposits, only one of which has come under important development, and most of which have not been sufficiently explored to appraise their quality and extent. That now being mined is at Divriği, in central Anatolia east of Sivas. The total reserve at this locality is estimated to run from 30 to 40 million tons, with an average iron content of 60 to 65 per cent or even higher. The deposit consists of three ore bodies, only one of which is of the highest grade and easily accessible. This will be exhausted within five years at the present rate of extraction. It will then be necessary to tap another grade of ore containing up to 10 per cent of sulphur, which will have to be removed before the ore can be used.

Another iron ore deposit which is believed to be substantial in size, but has an iron content of only about 40 per cent, has been found at Adapazari, near Izmit, in western Anatolia.

While the existence of iron ore at Divriği had been known for years, the presence of a commercial grade and quantity was not established until after Turkey had decided on the location of its one steel mill and built it, at Karabük. The result is that the Divriği ore, which is used entirely at Karabük, has to be hauled about 600 miles by rail. This disad-

vantage in cost is increased by the fact that no equipment for efficient development exists at the mines, and the most primitive methods are used.

Output has varied widely from year to year, the lowest being about 20,000 tons in 1942, and the highest a little more than 231,000 tons in 1939. In 1946, production was slightly over 112,000 tons. (See Appendix Table 17.)

### *Copper*

Turkey has explored two important deposits of copper, one at Erganimadeni in central Anatolia, and the other at Murgul, on the Black Sea Coast not far from the Soviet boundary and the Soviet port of Batum. Others have been located, but no reliable estimates of their size and quality are as yet available.

The Erganimadeni deposits, which have been worked for a number of years, consist of both native copper and chalcopyrites. The indicated reserves are estimated at more than a million tons, with a copper content ranging between 6.5 and 10 per cent. Open-pit mining is employed. It is proceeding at about twice the rate of the smelting and refining, because equipment for the latter is inadequate and is not efficiently utilized. Production of blister copper has varied between 6,000 and 10,000 tons annually, the latter figure having been achieved in 1944 and 1946. Figures for the output of refined copper are not available for 1944 and 1946; the largest figure recorded was 2,205 tons in 1942, when 6,052 tons of blister were produced. (See Appendix Table 18.) As in so many other Turkish industrial operations, there is a striking lack of coordination between the large heaps of material on one side of the plant and the small pile of finished product on the other.

At Murgul the reserves are even greater; estimates vary from 2 million tons to MTA's present figure of 8 million. The ore consists of pyrites, chalcopyrites and bornite, with copper content ranging from 2.5 to 13 per cent, and a high

arsenic content. Some equipment was delivered before World War II, but has never been installed. The deposit is potentially important, and extensive plans for its development have been made, but its proximity to the Soviet border causes concern. A high degree of competence would be required for efficient exploitation of ore of this character.

### *Chromium*

The principal deposit of chromium ore in Turkey is at Guleman in central Anatolia and is operated by an Exploitation Establishment under Eti Bank. Ore reserves in this mine, according to present estimates, are about 800,000 tons, of which 500,000 have a chromium oxide content of 49 per cent. Several other commercially important deposits are known, some of which have been operated by private owners.

Annual production of high-grade, 40 per cent chromium ore by the government has varied widely, from a low of 23,000 tons in 1936 to a high of 105,000 tons in 1939. (See Appendix Table 19.) In addition, pre-emptive buying by the British during the war to prevent chromium ore from falling into enemy hands brought forth an estimated 250,000 tons of low-grade ore from mines scattered throughout Turkey. Eti Bank estimates that Guleman alone could produce 100,000 tons of high-grade ore annually, and has included an appropriation of a million liras (about \$350,000) in its new five-year plan to achieve this goal.

Chromium has as yet few uses in the Turkish economy, but is valuable for export, increasing the supply of foreign exchange. It is relatively rare (the United States, for instance, must import it) and is needed for steel alloys and many other purposes.

### *Sulphur*

Sulphur is a basic chemical with many important uses, military, industrial and agricultural. Sulphur mining in Turkey is an old industry, but it did not become important com-

mercially until World War I, when the Germans undertook its development.

The principal Turkish deposit is at Keçiborlu in southwestern Anatolia. The mass hitherto worked contains over a million tons of ore ranging between 10 per cent and 60 per cent sulphur. Recently, a deposit of about 80 per cent sulphur content has been discovered adjoining the present workings.

The present mining and concentration works were established in 1935 by a joint private and governmental organization; this was taken over by Eti Bank in 1943 and converted into a state establishment. It is one of the best managed of Eti Bank undertakings; it has sold its product on the world market at competitive prices and has consistently made a profit. Under Eti Bank operation production has averaged about 3,200 tons a year. This includes both commercially pure sulphur and dusting sulphur used in vineyards and for other agricultural purposes. (See Appendix Table 20.)

#### *Manganese, Emery, Borax and Other Minerals*

Over fifty deposits of manganese ore with a reasonably high content of manganese have been reported, but those mined so far have been limited to a few thousand tons each and have been quickly exhausted. In spite of intensive search, no large deposits have been discovered. The fact that most of the ore is found in rugged mountainous regions without transportation facilities renders its exploitation difficult. The largest output so far, a reported 5,095 tons, was achieved in 1945. (Data on minerals discussed in this section are given in Appendix Table 21.)

Turkey has abundant deposits of emery in southwestern Anatolia, and for years it was in demand throughout the world. But the introduction of synthetic abrasives, combined with high cost and difficulty of transportation of the natural product, has resulted in virtual suspension of this industry. During the recent war there was a slight increase in demand.

Turkey's deposit of boracite at Sultan Çayırli was for years an important source of this material. An English concern held the concession and up to 1930 mined an average of 15,000 tons a year. The huge development of borax in California, however, has since then made this enterprise dormant, except for a temporary renewal during the war. It is said that it might compete successfully in the world market by using modern methods and equipment, provided transportation were available at a reasonable rate and in sufficient quantity.

Zinc mining used to be important in Turkey, but during the war the only known reserve of commercial importance was exhausted.

Mercury of high grade also was formerly produced near Izmir, on the Aegean Coast, but the known reserves have been depleted, except those with such low mercury content as to make exploitation unlikely.

Minerals developed privately on a small scale include antimony, rock asbestos, magnesite and meerschaum.

#### *Future Potentialities: Minerals and Petroleum*

There are probably many other minerals in Turkey which might turn out to be of value. MTA has reported, without detailed information, the discovery of important bauxite ores. Other deposits examined, but not yet developed or fully assayed, include arsenic, barite, gold, graphite, gypsum, kaolin, mica, molybdenite, nickel, silver, lead and talc. Though little petroleum is produced, there is a prominent anticline at Ramandağ in south central Turkey which in the opinion of MTA holds a good deal of promise. Small wells in this region have been producing for several years. MTA has recently engaged American contractors to begin a competent program of exploration. Apparently it is the intention to develop any oil discovered as a government enterprise. Although several applications for concessions on terms extremely favorable to the government have been made by

private companies, no action has been taken on them, so far as is known. Any private oil development would require a special agreement setting aside present legal provisions. The chances are that Turkey does not contain enough oil to make it an important source of export, but it could make good use of any reserves in its domestic economy.

### MANUFACTURING

In Turkey almost the only manufactures which have grown naturally out of the needs of the people are those which are indicated by a literal translation of the word—handmade goods. In old Istanbul, for instance, one can find mile after mile of narrow, stone-paved streets zigzagging through the bazaar district, in which long rows of handicraft shops heap up their ornamental sandals, leatherware, pottery, olive crocks, barrel hoops, iron nails and axheads, much as they have done for fifteen hundred years.

These wares and their makers bear little relation to modern industry. Fascinating as they are to the visitor, they do not form part of the subject of this study. Indeed, even if there were a reason for summarizing the official statistics concerning them, the results would not be illuminating, since the figures are compiled from the reports of tax collectors who seldom win against the age-old endeavor to conceal taxable wealth, and who often inflate their figures by the wildest of guesses in order to make up for the concealment which they suspect.

#### *The Industrial Revolution Comes to Turkey*

In the Western world, the Industrial Revolution had developed from such beginnings and had grown for a century and a half before Turkey seriously attempted to adopt it. When she did so, she omitted all the intermediate stages, and in consequence has not gone through a real industrial revolution at all.

One sees on the skyline of Istanbul and other cities, in

clear spaces between mosques and balconies, slender smoking chimneys of modern factories—"Atatürk's minarets." But these factories are mysteries to the peasants, traders and craftsmen who make up the great majority of the Turkish population. They were erected and put into operation by high-pressure technical salesmen from abroad and are run by Doctors, Masters and Bachelors from engineering schools. The latest products of Western industrialism which they are designed to make—high speed, chromium plated and cellophane wrapped—are in many cases as alien to the life and the most elementary needs of the Turks as are the smoking "Atatürk minarets" to the Mosque of Sulaiman the Magnificent.

Instead of starting with roadside forges and farm machine shops, and devising little by little, through ingenuity or mechanical skill, the improved designs and the more complicated machinery which led in Britain or America to a multitude of larger plants and eventually to great factories and basic steel mills, Turkey by governmental fiat imported from abroad the latest design in steel plants and other factories. Yet she still uses few metal plows or harrows; she has no commercial foundries of importance to make the simplest iron necessities for farming, construction or industry. The enormous gap between the primitive handicrafts and the most highly developed technical productive facilities has never been filled. Our report of what exists must deal mainly with the new state factories; our suggestions of what should be done to supply the urgent needs of the Turkish population must lie in the gulf between them and an economic culture virtually unchanged for more than a thousand years.

A few enterprising Turks did, from time to time, build small factories of their own. The oldest "modern" factory in Turkey was such a plant, equipped with a steam engine in 1842. But for the most part, these small beginnings have been swept up and overshadowed by the program of state industrialization. Such private ownership in machine industry

as survives today exists mainly in the textile and cement industries.

### *Iron and Steel: Karabük*

It was characteristic of the ambitious effort to jump straight into the middle of modern industrialism that Turkey erected a great basic steel plant (an enterprise of Sümer Bank) before she had developed many of the small and light industries serving consumers, to say nothing of forges and foundries to supply the common uses of iron.

The site selected was Karabük, separated from the Black Sea Coast by mountains across which coal for the plant has to be transported a minimum distance of 45 miles, and 600 miles overland from its supply of iron ore at Divriği. This places the plant under a terrific initial handicap in transportation costs.

When the site was chosen, it was thought that the furnaces would use imported ore; the size and quality of the Divriği ores had not been established. Aside from the fact that a survey of native iron resources would have been a logical preliminary to the erection of a large and costly modern plant, the intention to use imported ore would have dictated its location on the coast, where the ore need not have been transshipped and the coal would have been at hand. But military men thought to protect it from attack by placing it behind a 4,000-foot elevation—now a wholly futile precaution. This outcome might possibly have been foreseen even in 1933, when the plant was projected. At any rate, it stands 50 miles from the port of Zonguldak and 70 miles from the projected port at Ereğli.

When, after about five years, the high-grade ore at Divriği gives out, it will be necessary either to provide a desulphurizing plant for the remaining ore there—a costly undertaking—or to extend and improve a railway to a more recently discovered deposit near Izmit. Although the distance is much shorter from Karabük to Izmit, the ore of the Izmit deposit



has only a 40 per cent iron content against the 60 per cent at Divriği; use of it would increase costs of mining and transportation and decrease the capacity of the blast furnaces.

The site itself was not in a populous region; an entire new city had to be created to serve the various furnaces, mills and shops, and this added to the capital costs.

### *An Economic Monstrosity*

As if these handicaps were not enough, the plan of the plant itself is unbalanced and unsuited to the needs of the country. The two blast furnaces have an annual capacity of 350,000 tons of pig iron; this would be sufficient for the production of 288,000 tons of steel, if no pig iron were sold. Yet the steel furnaces have a capacity of only 150,000 tons a year—little more than half enough to match the blast furnaces. The rolling mill, in turn, can turn out only 40,000 to 50,000 tons of an average combination of the products it is equipped to make, or one third the capacity of the steel furnaces. Since there are no other steel mills in the country, the result is that even if the rolling mill should operate at capacity, the steel furnaces could operate at only one third capacity and the blast furnaces at only one sixth. Such a waste of capital would be serious for any country; to Turkey it represents a tragic diversion of scanty resources.

To make matters still worse, the rolling mill is not designed to make the steel products Turkey needs most. It can roll principally large sections, heavy plates, and rods with diameter from 12.5 mm. up (about  $\frac{1}{2}$  inch), but it is without equipment to produce structural shapes and plates of the dimensions required for bridges, building construction, ship building or repair, or the smaller rods which might find a hundred uses for daily necessities such as concrete reinforcement, wire or nails. It did manage to produce, in 1945, 3,700 tons of rails, which were so inferior in quality that they had to be rejected by the railways in spite of their desperate need, and 7,500 more tons in 1946, of somewhat better quality,

many of which still could not be used for the purpose for which they were rolled. One can see these rails in many Turkish buildings under construction, serving awkwardly for the T and I beams which the mill cannot make. Many a Turkish water tank is fabricated out of heavy plates which properly are needed only for such purposes as oil tanks of the largest size or ship construction. The products of the mill are not used for armament.

Responsibility for this economic monstrosity must be borne largely by the foreign agencies whose services were sought and accepted by the Turks. It was originally planned on the basis of technical advice by the Krupp interests in 1932-1933. What their idea was in foisting such a white elephant on the Turkish people can only be surmised; doubtless they looked forward to supplying the Turkish market for steel from Essen. At the same time, the Turks were under the spell of the Soviet passion for the magnificent planning and construction of heavy industries which had incurred Lenin's criticism of "gigantomania." The engineering work was finally done by a foreign firm of unquestionable technical competence, but according to Karabük officials this firm was compelled to follow the original plans or see the job go to Germans, who had nearly landed the contract in the first place.

### *Performance at Karabük*

The plant was completed in 1940. By far the largest output was attained in 1945 and 1946. In each of these years, the blast furnaces, with a capacity of 350,000 tons, produced 75,000 tons of pig iron. From this, plus scrap, the steel furnaces, with a nominal capacity of 150,000 tons, turned out 65,000 tons of steel ingots in 1945 and 76,000 tons in 1946. The rolling mill produced 47,700 tons of rolled products in 1945 and 54,000 tons in 1946—somewhat above its rated capacity. The sheet mill produced 4,950 tons of sheets in 1945 and 8,500 tons in 1946. Total finished steel in 1946 was

thus 62,500 tons, in face of a demand in Turkey estimated at 200,000 tons. The product in turn was not well adapted to most of the needs. This outcome was inevitable, given the nature and design of the plant.

Figures of cost, supplied by the state, must be accepted with reserve. They are based on the present price of iron ore, delivered at Karabük at 12 liras (\$4.25) a ton. Coal, as has been noted in the mining section, is bought below cost of production, because of the subsidy. The stated costs

TABLE 1  
IRON AND STEEL—CURRENT COSTS AND PRICES

Item	Cost	Sales Price	Cost	Sales Price
	<i>(Liras Per Metric Ton)</i>		<i>(Dollars Per Metric Ton)<sup>a</sup></i>	
Pig iron	90	90	(32)	(32)
Ingot steel	150	200	(53)	(71)
Heavy sections	253	410	(89)	(145)
Rails	375	575	(133)	(203)
Plate	390	538	(138)	(190)
Medium sections	272	480	(96)	(170)
Bars	275	540	(97)	(191)
Sheets	420	620	(148)	(219)

Source: Based on official statistics of the Karabük plant.

a. At devalued exchange rate of 2.83 TL to the dollar; these rounded dollar prices would have been 55 per cent higher before the 1946 devaluation.

Note: Costs include depreciation. What other charges are included is not clear.

include depreciation, though it is not clear what other charges are covered. The present cost and price situation for various iron and steel products, is shown in Table 1.

The cost of manufacture is high, as would be expected, and especially so when the Turkish wage level is taken into consideration. Prices are fixed at a level to yield a substantial profit over these costs. They are so high that they could not be maintained without monopoly control, arising in part from present lack of steel in world markets and in part from restriction of free imports. If this monopoly should be relaxed, the enterprise would fail to yield the profit now shown in steel by Süner Bank.

*The Future of Karabük*

The Minister of Finance and the Minister of National Economy, as well as the Sümer Bank officials, are determined to rescue this plant at any cost. The original investment was 42 million liras (\$23 million at predevaluation exchange rate of 1.82 TL) for the plant itself, plus additional investments for transportation and other facilities. If the capital, administrative attention, technical skill, materials and labor already burned up by this industrial Moloch had been directed to satisfying the real needs of the Turkish people, they might by this time have enjoyed substantial progress in levels of living. It has made, for instance, heavy inroads on the inadequate output of coal at Zonguldak, badly needed for fuel throughout Turkey as well as for export to other nations. It has placed a crushing burden on railways already crippled by lack of equipment and in disrepair.

Now it is proposed to add still more investment and effort, to produce a still more modern establishment. Some such plan would doubtless be required to convert it into a well-balanced unit such as ought to have been designed in the first place, yet the question remains whether a great modern steel plant ought to have top priority in the industrial development of an economy which still, for the most part, is operated at levels characteristic of Europe in the Middle Ages.

One of the plans proposed at Karabük would increase the finished steel capacity by 180,000 tons, an output regarded as essential to its economical operation. The new capacity in the plant itself would be devoted to sheets, plates, rails, heavy sections, medium sections, rods and bars. It would require new railway trackage and additional equipment for the iron mines, and improvements in the mining operations themselves. Estimates of necessary additions, alterations and incidental expenses at the plant alone range from 25 to 100 million liras (\$9 to \$35 million).

Other, and more ambitious, plans would also equip the plant to manufacture seamless tubing, centrifugally cast pipe

and tinned sheets, an operation which would add another \$8 million to the investment.

No one can be sure what should or could be done with the plant without a thorough analysis by competent experts who have no ax to grind. Whatever the program adopted, it ought not to be the product of false pride or wishful thinking. Suggestions which might make possible American help in a salvage operation are reserved for the concluding chapter of this report.

### *Textiles*

Hand spinning and weaving, carried on as a domestic industry, is found in most ancient economies throughout the world. The inhabitants of Anatolia many centuries ago developed special skill in these arts, and their products, "wondrous fine and colored," were sought after by the roving traders of many other nations in succession—Phoenician, Venetian, Genoese, British and others.

One of the first factory industries to develop in England during the Industrial Revolution, with the invention of the spinning jenny and the power loom, and the application of steam power, was the manufacture of textiles. As the machine technique spreads throughout the world, the textile industry is also one of the first to be adopted by more "backward" regions. The domestic market for the product is large everywhere; labor with sufficient skill is almost universally available; the step from handwork to machine production is a more natural one to take than in the case of less familiar products, or those which cannot be made at all without intricate technological processes.

Turkey was no exception to this rule. This industry was not only the first but also the only one in the country to embark on machine operation during the nineteenth century. Several spinning and weaving mills installed steam power before 1860. In Turkey, however, the mechanization of the industry grew slowly, and the handwoven products, so far as

they gave way, were displaced mainly by imported goods. Even today the native textiles, principally rugs, consist to a considerable extent of the product of hand looms.

Turkey is even better situated than most countries to carry on a vigorous and flourishing textile industry of the modern sort. She has not only the tradition and native skill, but is actually or potentially an abundant source of all the required raw materials and power. Enough cotton is now grown in the region around Adana to supply the present production of Turkish cotton mills, and the output per acre could be increased 50 per cent by the use of fertilizer and could be doubled by irrigation. On the central plains the herds of sheep produce about 30,000 tons of wool a year, of which 20,000 are used in the native carpets and coarser grades of woollen goods, the rest being exported. Finer wool could readily be grown by improving the breeds of sheep. From Angora goats about 8,000 tons of mohair are derived annually, most of which is exported. Silkworm culture formerly flourished, and of course synthetic yarns can be manufactured from cellulose or coal. There is no inherent reason why Turkey could not supply her population with an abundance of fabrics of all conceivable varieties at reasonable prices.

### *The New Textile Industry*

Most of the existing textile mills were erected under the industrialization program of the Republic. Somewhat less than half of them, measured by output, are state owned, being, like other manufacturing industries, an enterprise of Sümer Bank. There are 190,000 spindles and 5,000 looms for cotton, of which the four Sümer Bank mills account for 89,000 spindles and 2,400 looms. For woollen goods there are about 50,000 spindles and 500 looms, of which the five Sümer Bank mills own 23,000 spindles and 250 looms. In addition, Sümer Bank has one plant for the manufacture and weaving of artificial silk and four rug factories. The state

mills employ approximately 25,000 persons; figures are not available for the private ones, but their employees probably do not number many more than this. Turkey's former flourishing silk industry, largely in the hands of Greeks, was virtually exterminated by the exchange of Greek nationals after World War I.

The products are mainly goods of the cheaper and coarser grades. In 1946 the output of cotton yarn was about 28,000 tons; the cotton piece goods turned out accounted for only about 60 per cent of Turkish consumption. Woolen cloth, about 7,000 tons, supplied 85 per cent of Turkish demand. The remainder of the textiles consumed by the Turks were imported.

It is a curious fact that in an intensive drive for industrialization and self-sufficiency, Turkey has not, within the twenty years since the program was started, provided enough capacity to supply even the modest wants of its population, in an industry which is the easiest of all to build up from small beginnings and for which the Turks are peculiarly well adapted and supplied by nature. The reason is not any of those which ordinarily might apply in other countries. The deficiency is not due to foreign competition, since imports and markets are rigidly controlled and the domestic industry has been fully protected. Nor does it arise from any desire to allow the population to enjoy the benefits of cheaper cost or better products derived from foreign mills, since prices are maintained at a high level. Indeed, the consumption of textiles appears to be greatly restricted by the prices at which they are sold.

The actual situation is that the government employs the manufacture and sales of an underdeveloped textile industry, not primarily to supply the needs of the people, but as a source of monopoly profit. This profit in turn is diverted to financing ambitious undertakings which also do not supply elementary wants, like the Karabük steel mills, or to subsidizing inefficiently operated establishments like the Zongul-

dak mines. How this occurs will appear as we examine the method of marketing, the costs and profits.

### *The Marketing of Textile Products*

Sümer Bank exercises a sales monopoly of all textile products in Turkey—covering state mills, private mills and imports. The sales are made largely through a chain of wholesale stores, though some retail sales also are made. Prices are of course fixed by the state. Prices for both domestic and imported material are calculated by adding a markup on the cost of imports. This cost has recently been very high, because of the world-wide shortage of textile goods during and since the war; most of the imports have been coming from the United States.

It is difficult to judge the costs and profits of the state mills, because they are involved with overhead charges, social welfare benefits and various types of taxes, and there is no assurance in any given case what part of such costs is included in the figures. Apparently the markup on both domestic and imported goods has been exorbitant. Data furnished by a private mill owner indicated that a certain grade of cotton fabric in large demand was bought from private mills at about 20 cents a yard and sold to the public for about 40 cents. The same material could have been supplied to consumers from imports for about 25 cents a yard (at seaports). The private mills, if allowed to sell their own product, could therefore have competed with the foreign product, and the public could have obtained the goods at a price not much more than half that charged by the state. Such data as are publicly available indicate that the profits of Sümer Bank from manufacturing, purchasing and selling textile products have averaged from 40 to 50 million liras a year (\$22 to \$27 million).

The entire output of the private mills is sold to the state at prices fixed by the latter. The prices paid are calculated on a cost-plus percentage basis for each type of product at



each mill. Experience in this country during war indicates that such a practice, though profitable to the manufacturer, tends to inflate costs, because the higher the cost, the larger the profit. It is even more difficult to ascertain actual costs and profits in private plants than in governmental ones, since because of the omnipresent tax-gatherer, financial figures are closely guarded secrets. Every effort is made to avoid the display of any wealth which the state might take away.

Even so, there are indications that private mills have somewhat lower costs than the state establishments. Visits to a dozen or more plants during this survey showed that a state plant making a certain kind and quality of goods, with about the same number of production workers as a comparable private plant, might have 150 to 160 on its administrative staff, including all the employees receiving the higher levels of pay, while the private plant would have 20 to 30. The state plants also provided a long list of employees' benefits from which the private plants were at least temporarily exempt.

Both high costs and large profits therefore limit the market for textiles. Probably 17 million out of Turkey's 20 million inhabitants are insufficiently clothed.

### *Expansion of the Industry*

It may be wondered why, if the private textile mills in Turkey are so profitable, private capital is not invested in expansion, in view of the assured market for more goods than are now produced within the country. Indeed, the private textile mills are often cited by public authorities to prove their favorable attitude toward private enterprise.

A number of reasons combine to inhibit private expansion. The price formula allows a rate of depreciation which is sufficient for mills fifteen years old or more, but is not adequate to amortize new plant and equipment at present costs. In consequence, private owners are content to run their machinery as long as it lasts, but are not inclined to replace it

or to add to their capacity. They are also influenced by the tendency of the state, shown in other industries, to take over private enterprise and even to confiscate private shareholders through a heavy tax on capital. Finally, they are aware of the fact that prices of imported textiles are likely to fall when the products of Japan and India come back into the market, and regard it as safer to await developments.

The failure of the private sector of the industry to expand is mentioned as a justification for the plans of the government, outlined in the 1947 five-year plan, to spend approximately 87 million liras (\$31 million) for additions to existing mills and the erection of new ones.<sup>3</sup> The plan includes facilities for cotton fabrics, cotton thread and print goods, new woolen mills, mills for synthetic fibers and fabrics, and even a cellophane plant of 100-ton capacity to utilize the second-quality viscose discarded by the existing rayon plant. The last thing in the world needed now by Turks is cellophane, in view of the scarcity of consumers' goods.

There is no doubt whatever that the Turkish people ought to have more textile products. They would, however, derive little advantage from substituting domestic production for imports as long as prices remain as high as at present. Unless an entirely different industrial and selling policy is adopted, which would seek to increase textile consumption by efficient methods and low prices, the people would benefit more from importing their goods at reasonable cost when the cheap foreign producers come back into the market. The contemplated textile investment could then be devoted instead to needed domestic improvements which cannot be imported.

The chief criticism here directed at the administration of the textile industry should not be misunderstood. It has been the practice in all progressive industrial societies to use the profits of one industry to finance other and newer industries, or to expand the industry in which they originated.

3. See footnote on page 98.

But in the more advanced economies this practice has been justified only when it is the outcome of an industrial policy which serves first the elementary and pressing needs of consumers by selling them all that they would buy of common necessities at competitively determined prices. Profits arising from efficient production, large markets and low prices are an indication of genuine public service on the part of industry. On the other hand, profits arising from restricted or inefficient production and monopolized markets reveal exploitation of the consumer. The Turkish consumer of textiles has been "paying through the nose" for the dubious benefit from badly managed projects to which the profits derived from him have been diverted.

### *Cement*

In the case of cement, needed for modern construction of all types—buildings, roads, bridges, dams, etc.—the production record has been unsatisfactory ever since Sümer Bank entered the field in 1935.

No basic handicap exists to retard the rapid expansion of this industry in Turkey. There are abundant deposits of limestone and clay suitable for the purpose in every section of the country where fuel is available, and there are many deposits of coal and lignite. The initial cost of cement plants is not high, as compared with that of most modern manufactures. The operating process is simple and requires few trained technologists. Transportation problems should be at a minimum because of the wide distribution of the materials.

During Turkey's first period of industrialization, private plants were built and quickly attained a production of about 165,000 tons a year. Private expansion came to a standstill with the adoption of Etatism and the first five-year plan. The government erected a single large plant at Sivas. Its capacity is about 90,000 tons, but it has been unable to average more than about two thirds of that figure because of

coal shortage. The only other government-built plant was at Karabük; this produced material solely for the local steel mill and town. The state has taken over one of the large private establishments. All together, production has risen only to about 235,000 tons annually since 1935, in face of an existing potential demand estimated at a million tons.<sup>4</sup>

Although the supply has been eked out by imports, which are said to have ranged between 75,000 and 100,000 tons a year, Turkey's development has been starved for lack of cement. It is difficult to believe that in such an easily created and operated industry, and in one with such a secure and rapidly expanding market, private enterprise would not have done better, under conditions favorable for its growth, than has the state.

### *Paper*

Sümer Bank has made an investment of 20 million liras (\$11 million at the predevaluation rate of 1.82 TL) in a paper and cellulose establishment, which has succeeded in supplying only one fifth of Turkey's present consumption of paper and cardboard—although the need for these materials is small compared with that of more advanced industrial nations. Even on this amount, it has not recently succeeded in making a profit. In most other countries, paper manufacturing has been profitable, especially during the war years when there was a severe scarcity.

There are two paper and cardboard factories at İzmit. The capacity of the two mills together is 25,500 tons; in 1946 their output was 15,500 tons. Three cellulose factories were opened in 1945 in order to supply raw material for the mills; none of them has produced nearly its full capacity. The figures are: wood pulp, capacity 15,000 tons, output 3,300; straw cellulose, capacity 3,000 tons, output 1,000; rag cellulose, capacity 900 tons, output 500. It is reported that about 60,000 tons of paper products are imported annually.

4. See footnote on page 98.

Why the mills produce so much less than the output for which they were designed might be capable of analysis if careful economic studies had been made before the project was launched, and if these studies were now available. The sketchy nature of the advance planning is indicated by the fact that a dam was constructed for the water supply at the first mill, but was insufficient for the additional plants. For them, water has to be brought for 15 miles through a system which has a capacity of 200 million gallons a day, according to Sümer Bank.

Instead of analyzing and remedying the existing chasm between the large investment and the inconsiderable output, Sümer Bank now intends, under the 1947 five-year plan, to spend another 18 million liras (\$6.4 million) for expansion, including plants for "yellow straw paper," "packing paper and corrugated cardboard."<sup>5</sup> In view of the performance on record, it might be better to spend more on making articles useful for the population rather than for cardboard and wrapping paper to put around the present scanty products of consumer goods industries.

### *Leather and Footwear*

At Istanbul there is a Sümer Bank Establishment for leather and shoes, which is reported to turn out 3,000 to 5,000 tons of finished leather and a million pairs of shoes annually. A glue factory which produced 122 tons in 1945 is also part of the establishment. The investment reported by Sümer Bank in the enterprise is 5 million liras (\$2.7 million before 1946 devaluation). It has operated at a loss except in 1944.

The majority of Turks obviously cannot be shod with the products of this factory. Most of those who have boots or shoes wear either the handmade or the imported product.

5. See footnote on page 98.

### *Glass*

In Turkey there is one large Sümer Bank glass plant, at Istanbul, with a nominal capacity of 22,000 tons. It has succeeded in turning out not more than 7,000 tons annually, or less than a quarter of the existing reported demand. It makes bottles, some window glass and a small amount of tableware. There has been difficulty in the window glass production.

A small private plant (capacity 5,000 tons) used to make bottles on government contract, but the state factory took the business away from it.

### *Chemicals*

Turkey's rich and varied mineral deposits could provide the basis of a flourishing chemical industry in years to come, but the other resources necessary for such an industry, technical and human, are not yet far advanced. The industry requires electric power, adequate transportation and a high degree of skill both for design and for operation. Technological obsolescence is rapid and must be taken into serious consideration in planning such developments. Since most commercially important chemicals are already produced at a low cost elsewhere, and are transported in pure or concentrated form and consequently without heavy freight charges, Turkey would do well to postpone attempts to develop this industry until later, when the demands of her manufacture and agriculture for chemicals are larger.

At present Sümer Bank has a small plant for the manufacture of sulphuric acid at Karabük, and another at this location for superphosphate. Chlorine and alkali are made at a plant connected with the state paper mills at Izmit, which so far has produced far below its estimated capacity. (See Appendix Table 22.) Hydrated kaolin is also produced at Izmit in relatively small quantities. The cellulose and viscose plants at Izmit have already been mentioned.

The new five-year plan provides for extensive chemical developments by the state, including manufacture of nitrate and

allied products, caustic soda and its derivatives and copper sulphate.

### *Machinery*

A few small plants exist at Istanbul and Ankara for the manufacture of simple machinery and implements, but their output is negligible. There is not a modern commercial foundry in the whole of Turkey. There are no facilities of importance even for the assembly, much less for the production, of the common implements without which it will be impossible to make much progress in agriculture. Turkey has a great need of ordinary wagons and carts, truck trailers and railway freight cars, but there is no local manufacture of essentials of this sort, except for such use as may be made of the steel-mill shops at Karabük or the limited equipment at a few of the state factories for their own use.

There is, however, a state factory for the manufacture of airplane engines. In spite of the fact that it has been in operation for several years, no engines have been completed. Another factory is now contemplated in Ankara, which is expected by the state officials to turn out Diesel engines, gasoline motors, machine tools, textile machinery, small cranes, a variety of spare parts and other things quite beyond the present level of skill or technique available.

A well-equipped foundry was established several years ago by private capital in Istanbul, but it is no longer in operation. A member of the Fund survey group visited it with the owner to discover the reason.

It was in a location well served by a railway and was adjacent to a deep-water pier. The foundry had been well designed by foreign engineers; its equipment included two cupola furnaces with six or seven tons capacity, other furnaces for special purposes, adequate machining and grinding tools and about twenty new electric welding machines of the most modern type, which apparently had never been used. There had been no lack of business; the owner was urged by

various state establishments to accept large orders for such simple products as cast iron railway car wheels. It appeared that he might have made a fortune, yet he lost so much money that he shut the foundry down in order to save what he had.

The owner, who had accumulated his capital in agriculture, had had no practical manufacturing experience, and he could not find any men competent for general management or shop supervision. If such men existed in Turkey, they were of course employed by state establishments, and would not risk their future as employees of a private enterprise.

### *Machinery Imports*

Naturally the machinery used in Turkey is all imported. Much of it is German, almost none American. One of the main reasons, as given by a high official in the state industrial systems, is that American machinery is built to be replaced within a short time by something bigger or better; meanwhile it is kept running by use of inexpensive repair parts which must be installed by skilled mechanics. Turkey cannot spare its few mechanics to make repairs, and expects to run its machines a long time without trouble. German or British machines, he said, will do this, but not American.

Whether or not this remark is applicable to the more reputable machine manufacturers of the United States, it is easy to see why such a belief could make headway abroad because of the cheap and worthless gadgets with which Americans have flooded world markets. The impression is general that we do not value quality and endurance in our products.

Russian machinery is not in favor, either. In a textile factory built by Russians there was a display board on which were hung more than a hundred different defective parts removed from spinning and weaving machines. The Russians, explained the engineer, had combined parts from every country making this type of equipment, with the result that some parts were too weak or ill designed for their function in the synthetic machine. The workmanship of Russians, he said,



was good, but they were likely to use as material anything they could spare. German materials had deteriorated during the war. "British, Swedish and Swiss manufacturers," he observed, "are the only ones who have never allowed poor material to leave their countries."

### *State Monopolies in Consumer Goods*

While, as we have seen, the state exercises actual monopoly in the iron and steel industry and many others, specific legal exclusion of private enterprise exists only in the sale of widely used consumer goods. This practice was a means of raising revenue long before the establishment of the Republic; the salt monopoly dates from 1862, the tobacco monopoly from 1874 and the gunpowder monopoly from 1875.

Since the Revolution, the state has also established monopolies in alcohol, matches and coffee and tea. The direction of the monopolies has been removed from the Minister of Finance and placed under a newly created General Administration of State Monopolies, which, with a capitalization of 100 million liras (\$55 million before 1946 devaluation), not only controls the sale of the monopolized articles but has launched into their manufacture on a large scale. Whereas formerly production was operated as a private concession, sometimes to foreigners, it was now nationalized. It is not clear, however, that there has been any real change in the old custom of regarding such activities primarily as a source of revenue to the state rather than as means for improved service to the consumer. The Monopoly Administration (which does not include the monopoly of textile sales previously referred to) in 1946 returned to the state, in addition to taxes paid, 171 million liras (\$94 million).

The salt monopoly extracts salt from sea water, lake water and salt mines. Salt production has generally declined in the past decade.

The tobacco monopoly owns and operates six main establishments for tobacco processing and cigarette manufacture,

besides a box factory and other accessories. The sales value of its product in 1946 was about 125 million liras (\$69 million).

The gunpowder monopoly, now covering all explosives, fireworks and ammunition, is employed largely for regulatory purposes, to safeguard the use of such materials.

The alcohol monopoly owns seven distilleries and breweries, and seven wine factories. Its principal product is distilled spirits in bulk. The value of its output in 1946 was 50 million liras (\$27.5 million).

The coffee and tea monopoly, established in 1942, has greatly increased the output of both, and expects to make Turkey self-sufficient in tea.

Safety matches, produced by a monopoly, are of such poor quality that their use has to be protected by state monopoly in lighters, which are of cheap European manufacture and are even worse than the matches. Any policeman may pick up a person using a lighter without a government seal. A Minister of National Economy himself paid a fine for violation of this law.

### *Sugar*

Turkey has long been a heavy consumer of sugar, but before 1926 all its sugar was imported. In that year Ish Bank (a privately owned institution) joined with the Agricultural Bank in building two refineries, and two more were started in 1933. Later, Sümer Bank participated in the program under the first five-year plan of 1934. The aim was to make Turkey self-sufficient. By 1946 not only had this aim been achieved, but there was a small surplus for export. The price had been greatly reduced and consumption expanded. This augurs well for the establishment of a greatly needed food-preserving industry.

This highly satisfactory planning and performance, almost unique in Turkey's industrialization program, may be attributed to competence in direction and a minimum of

political interference. The Turkish Sugar Refining Company, which owns the refineries, was set up at the beginning of the program in the form of a private corporation, and has an independent Board of Directors. In spite of the participation of Sümer Bank after the policy of Etatism was adopted, the form and the control of the company were not altered. It is not a legal monopoly, though in fact it has no competitors. It is free to perform its function of supplying sugar efficiently and cheaply, without being regarded mainly as a source of state revenue or patronage.

The man in executive charge of the undertaking has exceptional capacity and has retained his post for many years. Though much of the success must be attributed to him, the opportunity to do a good job could not have existed without an organization in which his ability was given scope, one in which responsibility and lines of authority were clearly defined. The economic administration of the country could learn much from this successful example of businesslike operation.

Though beets have served as the chief raw material, great progress has been made in the development of cane in certain regions, where, according to the reports of experts, it has demonstrated its superiority. The two sources in combination assure a future high rank for the industry.

In connection with the production of beets and cane, the Sugar Company has established a dairy products side line which enjoys the same good management as the parent company. As a result of the experience of the latter in agriculture, processing, shipping and distribution, it would be well equipped to branch out into canning of fruits and vegetables through subsidiary companies in which local producers would participate. Here is a possibility for a promising undertaking well suited to Turkey's needs and capacities, and of great potential importance both for domestic consumption and for export.

## MANPOWER RESOURCES

Though Turkey has a much lower density of population than the eastern European nations, and is generally regarded as underpopulated, the low levels of production which prevail leave a good deal of spare time on the part of a great proportion of the men. This is not unemployment, as understood in the West. Almost everybody works a little, to produce or buy his elementary necessities, and lets it go at that. Idleness is due not to laziness but to the lack of opportunity or incentive for any higher material standard.

Among the 80 per cent of the population which is rural, the women do most of the work except at times of planting and harvest. This is all that is required to produce a meager sustenance for the family and the small surplus that can be sold, given the limited means of transport. If more were raised, it could not be marketed. If more money were earned, there would be little to spend it for. In both country and city, it is the immemorial custom for the state to take any surplus wealth of the individual, through taxes or otherwise. Enlargement of one's possessions, or even improvement in their appearance, attracts the eye of the tax collector. Some money is saved, but there is little opportunity to invest it except in land or precious metals.

The consequence of the prevalence of idle time is that a good deal of labor could be drawn into industry without seriously depleting the labor supply of agriculture and other traditional occupations. If farmers had larger markets, they might require more help, but in that case they could absorb most of the casual and migratory workers—for example, cotton and fruit pickers—who now have nothing to do in the off seasons. And even the most elementary improvement in agricultural implements and methods would greatly increase the output per worker.

A potential source of industrial labor which is almost untapped is the many thousands of handicraftsmen in the bazaar shops of the cities. Industries making consumer goods and

farm tools of the sort Turkey most needs might deprive many craftsmen of their present livelihood, but those displaced could easily do better in efficient factory production. The early history of the Industrial Revolution in other countries indicates that it is as likely to create unemployment as labor scarcity.

The usual practice of the state in locating factories has been to put them in places where supplementary occupations are needed because of more meager resources for the sustenance of life than are usual even in Turkey. The motive is probably more political than social, and economic considerations have played little part in the choice. The steel plant at Karabük—the largest enterprise in Turkey—was placed in a rural region, without regard to labor supply. It has taken about half the employable men from the province, and the army has drafted young men as well. There are not many left for agriculture, but this was not the best land in Turkey in any case, and levels of production were already so low that not much loss has been suffered.

There are hardly any men in Turkey who are miners by occupation. Mines draw on the surrounding countryside, and the turnover is high. At Zonguldak compulsory labor was introduced near the beginning of the war, and was abandoned only late in 1947. All able-bodied men in the vilayet were divided into two groups, which took alternate turns in the mines, working five weeks at a time. Naturally they lacked skill, though they worked hard. The Twentieth Century Fund observer, after watching several gangs in cramped quarters working at a "long-wall" vein, remarked that they did not *mine* the coal, but *farmed* it, and the mine superintendent agreed.

### *Native Competence and Education*

Though most Turks are still illiterate, and even those who can read and write have had, for the most part, only the most sketchy elementary education, they are intelligent and in-

dustrious when given the opportunity to work, and seem to learn mechanical crafts readily. The mountain people in particular are hard-bodied, clear-eyed and resourceful. They have to be. In another part of the world, while making an automobile trip over a high mountain range, the writer was assured that all the local drivers were experts—since all the others had gone over the edge! Something of the same logic determines the character of the Turkish mountaineers—and Turkey is full of mountains.

Literacy is rising among children of school age, and all state factories and private textile mills have school courses to teach their employees the three R's.

Since almost none of the workers have had previous industrial experience, they are trained on the job. At Karabük, the original operating staff was brought from England and trained Turks for their work. A school is regularly maintained at the plant to supply mechanics for it. The chief difficulty during the war was that in such trades as machinist, carpenter, electrician and plumber the men left when they were only half trained to work at building construction in the cities, on account of a building boom. Even half-trained men were in demand because of the general scarcity of skilled labor. An hour's observation at this school indicated that the young men learned as readily as the average group taking the same sort of courses in the United States.

While there is no shortage of labor supply in general, scarcities appear quickly and progressively as one goes up the scale. This is the result of the fact that the forced industrial development of advanced types of manufacture preceded any growth of small plants making such simple things as plows, wagons and wheelbarrows. As soon as men are prepared for higher types of operations, they gravitate to better-paying jobs at lower levels outside the plants where they received their training. This, in addition to lack of managerial skill, is the principal reason why it is not yet possible to achieve much success in manufacturing such products as air-

plane motors or Diesel engines. The Turks are mechanically gifted enough, but not enough of them can be found or retained at the higher levels.

### *Wages, Conditions, Morale*

Money wages in Turkish industry are far too low either to cover a minimum standard of living or to provide incentive. They take no account of individual effort or output. Promotion is by seniority. During the war, for example, the coal mines paid daily rates ranging from \$.50 to \$3.00, scaled by seniority almost exclusively. This system, which is universal in state factories, is based on a schedule (called the *barem*) developed by a French consultant for the Turkish civil service.

Because of the low wages, the state plants must supplement them by supplying free of charge many of the necessities and some luxuries—often including free meals, clothing, various types of social insurance, housing and recreation facilities. This system is an old one in the Middle East. As in Russia, there are no unions except those espoused by the government, which in practice has meant the People's Republican Party. Such unions as there are do not play an important role.

Independent unions are forbidden by law, as are strikes. There was no evidence in Turkey of any spontaneous organization by the workers, or even of any general labor dissatisfaction. This may be in part because the workers are largely isolated in widely separated state plants.

It may turn out in the end that the present wage system will not be found well adapted to Turkish needs. From the management side, it is open to criticism because it removes from direct labor cost, and adds to overhead, large charges, many of which are in reality necessary payments for labor. As now handled these charges cannot be checked against either performance or individual need, and are subject to inflation for political purposes. From the side of the workers, there may be objection to taking part of their wages in

standardized doles or rations instead of in cash which they could spend, or save, as they pleased. Many individual workmen in state plants who are personally ambitious hold this view. The chances are that as soon as more abundant food, clothing and other consumers' goods become available, both efficiency and the workers' morale may be improved by a cash wage system with adequate pay levels.

In the higher echelons, a system of bonuses above the *baremin* has had to be introduced in order to keep on the payroll qualified technicians and executives of various grades. This system is subject to a good deal of manipulation. Morale is low among graduate engineers and particularly among plant executives, because they are compelled, by contracts they signed in order to obtain scholarships for their education, to work in state institutions, where they believe they are wasting their time on account of faulty planning and political interference from above.



## Chapter 6

### ENERGY RESOURCES AND DEVELOPMENT

THE PRIMARY sources of energy in Turkey are abundant. She has large coal fields and still greater deposits of lignite. Water power is also available. Petroleum alone is lacking in sizable quantity. The full extent of these resources has yet to be proved, but they are without question large enough to provide the basis for a highly productive economy.

The need of the Turkish people for efficient motive power in small units is scarcely less urgent than their need for good roads, railroads and vehicles. In almost every town one can see grain mills or wells operated by gear wheels of medieval design to which are harnessed oxen or horses. Probably 95 per cent of the shallow wells used for irrigation of even prosperous farms and orchards are equipped with this antiquated device, even though an electric power line may pass the property. Any small shop which could use a motor above the capacity of five horsepower is likely to be prevented from growing by the high tax on its business, even if it is in the vicinity of a power line. Most of those wishing to engage in light industries can do so only by installing a Diesel engine, for which the fuel oil must be imported and paid for with foreign exchange.

#### *The Scarcity of Power*

At the time of the establishment of the Republic, what little electric generation and distribution there was in Turkey was in the hands of municipal stations, which were foreign owned. These stations were badly run down and inefficiently operated. They were expropriated. Subsequently new municipal stations were established. The number of local plants

grew from 2 in 1923 to 190 in 1945; the installed capacity expanded in the same period from 30,000 kilowatts only to 107,000. The number of households supplied with electricity was, in 1945, 355,000—out of a population of 20 million. (See Appendix Table 23.) Out of the total capacity of 107,000 kilowatts, the three largest cities alone—Istanbul, Ankara and Izmir—accounted for 83,000. The four cities having the next largest capacity had installations totaling only 1,000 kilowatts combined. Then came 48 plants with capacities ranging as low as 100 kw., and the remaining 135 plants had less than 100 kw. each.

In Ankara the new trolley-bus system must come to a halt when the lights go on, and similar shortages exist in Istanbul and Izmir. There is no surplus for industrial expansion. In the smaller cities the capacities of the plants are so small that no industrial load of any consequence could be carried.

Most of the municipal power plants have been poorly managed. It is a common practice to take the entire revenue into the general budget for current expenses, with the idea that when replacement or expansion is required, the necessary funds will be forthcoming out of the budget. The consequence is that such funds seldom are found. Even if there should be a sufficient budget surplus, any given administration is reluctant to appropriate it for this purpose, in view of the fact that the benefits of the added service would not be derived until it was out of office. It has been possible to borrow at relatively high interest rates, but those towns which did so soon heavily burdened their budgets.

During the war new equipment (which is not manufactured in Turkey) was almost impossible to obtain. Since then high prices for machinery have added to the problem already arising from undermaintenance and lack of sufficient expansion. The devaluation of the Turkish currency in September 1946 redoubled the financial difficulty, both for those towns which were paying for their plants in annual

installments and for those which had been well enough managed to accumulate reserves for depreciation or growth.

### *State Power Policy*

Small businesses are discouraged from buying power not only by its scarcity but by taxes based on its use. There is a tax of 10 to 15 per cent on the transactions of any business with an installation of more than five horsepower. Other levies based on the use of electricity, such as the consumption tax, the soldiers' tax and the municipal tax, may add 50 per cent or even more to rates which already are excessively high. While discounts are allowed for large consumption, these apply mainly to state industries in practice, since few private companies are large enough to qualify for them.

Though theoretically the public utility field has been open for private enterprise, investment in it has been discouraged by the fact that the original private owners of municipal plants were expropriated and ambitious plans for future state electrification have been announced. In addition, there seemed little opportunity to develop an industrial market since all large establishments are owned by the state and are supplied by it with the necessary power. Thus private capital has not flowed in to supply the need.

The national government itself, which might have encouraged the development of municipal plants, has instead devoted its effort to the electrical supply of large state industries. Many of these enterprises were deliberately placed in isolated locations which had no previous economic importance, partly in order to bring the benefits of the revolutionary awakening to every part of the country. Each such plant necessarily had to include its own generating equipment.

Slightly over 80 per cent of the electricity generated in Turkey is used by industry. Together three industries—textiles, coal and lignite mining, iron and steel—absorb nearly 75 per cent of the nation's industrially generated electricity. Paper uses another 10 per cent and sugar 6 per

cent. Part of the price which the people have paid for the concentration of capital and effort upon large industry under state planning is therefore a deficiency of power for the use of agriculture, small industry and household consumers. Domestic consumers use about 11 per cent of the total current; street lighting, public buildings and tramcars about 2.5 per cent each. (See Appendix Tables 24 and 25.)

Of the 84 state factories or other industrial enterprises, 24 distribute light and power to the towns at the factory site. Yet, although industrial plants generate more than half of the electricity consumed in Turkey (in 1945, 272 million kwh. generated in industrial plants, as against 214 million kwh. in municipal plants), the amount distributed by industries to domestic consumers and for all other purposes aside from their own consumption was only about 3 million kwh., or slightly more than one per cent of their electrical output. Municipal plants sold about 124 million kwh. of their 214 million kwh. output to industrial consumers.

The lavish way in which electrical energy has been supplied for large industry, while the people as individuals have been starved for it, is illustrated by the fact that the state textile mill at Ereğli uses electricity instead of coal to heat its steam boilers.

### *Energy Sources and Per Capita Use*

As would be expected, the major energy source employed for the generation of electricity is coal. Of the total output in kilowatt-hours, coal accounts for 78.2 per cent, lignite for 10.3 per cent, water power for 4.5 per cent, fuel oil for 4.4 per cent and wood and miscellaneous for 2.6 per cent. (See Appendix Table 26.)

Because of the large deposits of coal in Turkey, this fuel will be predominant in the future, although hydroelectric developments are planned. Unfortunately, the inefficient operation of coal mines and the shortage of transportation

have limited the expansion of power and have added to its cost.

The backwardness of Turkey as a consumer of electricity, entirely aside from the maldistribution of the existing output, is shown by the fact that it ranks low among the nations in per capita use, with only 29 kwh. per year.<sup>1</sup>

### *Plans for the Future*

The Electrical Energy Institute (EIE), a division of Eti Bank, has drawn up plans for a great extension of electrification, involving central stations, interconnections and long-distance transmission lines. EIE is highly competent in the techniques of electrical engineering; it is well organized and is staffed with well-trained specialists. The reports it has issued could serve as textbooks. Yet in view of the economic errors made in determining the character and location of industrial development so far, the forecasts of demand on which EIE has based its plans may require drastic revision. Starting from a recognition of the existing scarcity and under-use of electrical energy, EIE may go to the other extreme by constructing a network of which many of our own states might be proud, years in advance of the time when the economy of the country can either put the system to good use or pay for it out of increased production.

Within its general program EIE allots priority to seven generating stations and the necessary lines, at a cost of 235 million liras (\$82 million). These developments, which

1. Comparative figures for the principal countries of the world are as follows (data for 1946 unless otherwise stated):

Norway	3,500
Canada	3,470
Switzerland	2,135
Sweden	2,000
United States	1,610
Germany (1940)	808
England	801
France	500
Bulgaria (1940)	42
Greece (1940)	39
Turkey	29

would constitute only a beginning of the complete system outlined, EIE states "should be taken in hand at the earliest possible moment." The capacity to be thus created—1,635 million kwh. of work—is about six and a half times that which now exists, if one excludes the factories which generate their own power. During the past ten years electrical consumption, aside from these factories, has increased 22 per cent. Undoubtedly this increase has been too slow, but to count on a jump of more than 600 per cent within the next five or six years would appear hazardous.

### *Major Power Districts*

The power districts into which Turkey is divided by EIE, together with its estimates of loads (in millions of kilowatt-hours), are as follows:

	1955	1965
1. Zonguldak	350	500
2. Northwest Anatolia	585	1,150
3. Ankara	150	300
4. Aegean	100	200
5. Çukurova	80	150
6. Others	135	200
	<hr/> 1,400	<hr/> 2,500

The first district includes the Zonguldak coal area and the Karabük steelworks. The plan for power development in this district is based on the proposed expansion of the steel mill. (See page 111.) If one were to assume that this expansion is desirable, the power plan to accompany it is well conceived. A new generating plant will be built at Çatalağzi, near the source of coal. Power will be brought from the new plant to Karabük by an 80-mile high-voltage transmission line. This will save the present burden of carrying coal by railway to Karabük for power purposes. The railway will be electrified, so that it will not have to carry high-grade coal for its own locomotives. The generating station itself will use coal of a lower grade, and thus coal will be saved.

The power will be used for coal mining as well as for steel production and the railway.

The estimated cost of the Çatalağzi Power Station, together with substations in the coal basin and connecting lines, is 34.5 million liras (\$12 million), of which 18 million liras (\$6.4 million) will be spent for imports. The high-voltage transmission line to Karabük will cost, it is estimated, 6.5 million liras (\$2.3 million), of which 4.5 million liras (\$1.6 million) must be spent abroad. No estimate is available of the cost of electrifying the railroad.

The power station is to have three units of 20,000 kw. capacity. Though some of this power is needed for the proper development of coal mining, certainly not more than two of the units would be required for that purpose. At least the cost of one unit and of the high-voltage line could be saved if the projected expansion of the Karabük steel mill were not undertaken. At a rough estimate, this saving would make it possible to devote 15 million liras (\$5.3 million) in all, including 10 million liras (\$3.5 million) in foreign exchange, to serving the power needs of light industry and agricultural consumers, instead of expanding the basic steel plant.

A foreign contractor signed an agreement in 1940 to construct the power station, but could not begin work until 1946. According to a report by Eti Bank in 1947, it was expected to put the first unit in operation in the spring of 1948, the second in August and the third in November. The project for the transmission line to Karabük had not, when this report was made, been offered for bids. It may not be too late to postpone the completion of the project pending a decision on the future of the Karabük steelworks.

District No. 2, covering northwest Anatolia, is the most important. It includes Istanbul and the rich neighboring agricultural region; it offers many possibilities for industrial development. There are within it ample sources of water power and lignite. A sound electrification program in this

district, proceeding step by step as the demand increases, might be the means of bringing about the first real advance in the industrialization of Turkey. If, however, it proceeds on such an ambitious scale that it cannot be paid for out of the new wealth produced, it will simply be a burden on the labor of the country.

Consumption of electricity in 1945 and the loads estimated by EIE for 1955 in the northwest Anatolia district are as follows (in millions of kilowatt-hours):

	1945	1955
Istanbul	167	375
Izmit paper works	33	81
Gölçük shipyards	—	10
Added town load	—	9
Bursa (silk, etc.)	12	25
Eskişehir (state industries, etc.)	10	25
Kütahya locality		
Lignite mines	—	15
State nitrogen plant	—	40
Towns	—	5
	<hr/> 222	<hr/> 585

EIE estimates that this load may increase to 1,150 million kwh. by 1965. Three lignite plants and three hydro plants are projected, to carry eventually a load of 1,765 million kwh. annually. The first step planned is to build two plants which would be capable of carrying the estimated load until about 1958 or 1960. The cost of these two stations would be about 60 million liras (\$21 million).

The question whether this plan is sound depends largely on the industrial development which it takes for granted. But should the Izmit paper works be enlarged two and one-half times before 1955? Should the Bursa silk mills and other state establishments be doubled? Should 40 million kwh. be provided for the manufacture of nitrogen? These are questions of basic planning, about which, as has been noted in Chapter 5, caution ought to be exercised.



Similar questions arise about the plans for the other districts, into which it is not necessary here to inquire in detail. For example, the Ankara district, which obviously could use more power than it does, is expected to demand power not only for uses now in sight, but also for factories demanding a high degree of engineering technique, such as the manufacture of engines and airplanes.

### *Step-by-Step Development*

There can be no criticism of the kind of survey made by EIE as a guide for long-range planning. It is well to know in advance the location and potentiality of the various prime power resources, and to foresee how the various networks may best be developed as the need for them appears. What is lacking is a practical program for the next steps. It would not be desirable for power development to repeat the mistake of industrial planning, which has sanctioned large and costly projects that are of little present benefit to the people of Turkey, while ignoring more elementary requirements.

It would first of all be well to rehabilitate and operate properly the power systems already in existence. There should be plans for extending them sufficiently to meet the demonstrated needs of the present and the near future. Before projects are undertaken to supply large amounts of power for new or expanded state industries, there should be more study on the part of the industrial authorities as to what ought to be done about such existing plants as Karabük steel, and serious consideration of how Turkey is to obtain the light industries and small establishments which are most sorely needed. There should be a reduction of the taxes which now prevent the development of these small industries, and especially of those taxes which discourage the use of power. Other governmental policies which inhibit agricultural and industrial development of the sort appropriate to the early stages of an industrial revolution should be revised.

If these basic requirements were met, the electrification

program could proceed step by step. The long-range plan would serve as an outline, but the timing and selection of specific projects could be better coordinated with the development of the rest of the economy. Some of these steps would be small; from time to time a longer one would be indicated, such as a hydroelectric plant or a large thermal unit which would close down several existing smaller plants and in addition provide surplus capacity for the future. In this event some of the displaced equipment might be moved to other localities where it could still be useful.

It should be remembered that in any economy in which economic costs are considered, available and cheap power alone is not sufficient to justify the establishment of a new industrial plant, since power is only a fraction of the cost of production, except in the case of a few industries such as aluminum. Power may be one essential for industrial growth, but it is not the only essential. To incur the large costs of making it available merely in the hope that industry will use it, or on the basis of vague and ill-considered "five-year plans" would be to waste Turkey's small surplus of available capital. The prospective use, in the near future, and by industries serving genuine needs, of enough power to pay for the real cost of providing it, should be the criterion of expansion. A vast power program based on visionary projects which exist only in the imagination cannot be justified anywhere, and least of all in Turkey at present. Somewhere this spinning of webs must stop, and since the electrification program is still largely to be executed, this program is an excellent place to begin the process of building solidly on the ground. Real progress will be achieved more rapidly in the end if a durable foundation is laid.

## *Chapter 7*

### THE ECONOMY IN MONETARY TERMS

IN ORDER TO SEE any economy as a whole, it is necessary to translate its operations into monetary terms, since money is the only common unit of measure. This involves putting together information about the national income, prices, government fiscal operations, the banking system and the foreign balance.

Even in a country so advanced industrially as the United States, all the statistics required for a synthesis of this sort have not become available until recent years, and even yet there are areas of uncertainty. In the case of Turkey, statistics are far more scanty, and even those which exist are of questionable accuracy and inclusiveness. To attempt any neat summary in the form of social accounting would be futile. Nevertheless, it is possible, by a combination of description with such figures as exist, to present a rough sketch of the Turkish economy and its financial organization. This picture, crude though it is, leads to important conclusions concerning the ways in which American cooperation might be useful to the Turkish people, and the conditions under which this help might achieve its purpose. It also indicates the possibility of serious errors in policy, which would waste American or other foreign resources and fail to improve the Turkish situation.

### THE NATIONAL INCOME

There are no final and official statistics of the national income in Turkey. The trained experts in the Bureau of Statistics, realizing that a program of state planning must be unrealistic unless based on such information, have been

struggling with the problem. There is, however, a general lack of understanding of its importance, and few means for obtaining accurate source material. Many of the figures available are so doctored as to achieve no result except to frustrate the efforts of capable statisticians. The main body of data comes from the reports of state enterprises, and the accounting operations of these enterprises seem often to have only a distant relation to economic realities. In most other fields little but the vaguest of guesses is possible.

TABLE 2

PERCENTAGE DISTRIBUTION OF NATIONAL INCOME, BY SOURCE,  
1942, 1943 AND 1944

Source of Income	1942	1943	1944
Total	100.00	100.00	100.00
Agriculture	58.30	53.51	44.42
Industry	8.80	16.94	19.57
Commerce	25.90	24.24	29.62
Services <sup>a</sup>	5.00	3.78	4.71
Rents	2.00	1.52	1.67
Share from Mosul oil	0.009	0.01	0.01

*Source:* Data supplied by Minister of Finance.

a. This item means wages and salaries, not service industries.

Preliminary estimates of the national income have recently been completed for 1942, 1943 and 1944. (A rough estimate had previously been made for the year 1936.) Such summaries of these as are relevant are presented in Table 2 for whatever they may be worth.

The share of agriculture in these figures is probably too small; it does not account for agricultural products not entering commercial channels. These bulk larger than those which are marketed. The main component of industry is the product of state enterprises; for reasons previously explained, it is doubtful whether this represents a contribution to real income equal to its monetary valuation. The table, it will be noted, contains no item for the foreign balance; this is

presumably lumped with commerce. It is not in any case a large percentage.

The apparent recent rise in the national income to around 8 billion liras in 1943-1944 from 1.3 billion liras in 1936 is largely due to inflation. (See Table 3.) The index used by the government in computing prices on a 1938 base is the index of wholesale prices of the Ministry of Commerce. Whether the weighting in this index renders it appropriate for correcting the national income is unknown, but in any

TABLE 3  
NATIONAL INCOME, 1936, 1942, 1943 AND 1944

Year	1938 Prices	Current Prices	
	(Millions of Liras)	(Millions of Liras)	(Millions of Dollars)*
1936	1,330 <sup>b</sup>	1,330	(470)
1942	1,876	6,370	(2,250)
1943	1,404	8,286	(2,930)
1944	1,693	7,770	(2,745)

Source: Based on data supplied by Minister of Finance.

a. Computed on basis of 2.83 TL to the dollar.

b. 1936 prices assumed to be the same as 1938.

case the figures are probably not accurate enough so that it makes much practical difference. The index does show a price inflation of between four and five times the 1938 values.<sup>1</sup>

Whether a growth in national income confers benefits on the citizens depends not only on the course of prices, but also on the growth of population. Per capita income is shown in Table 4.

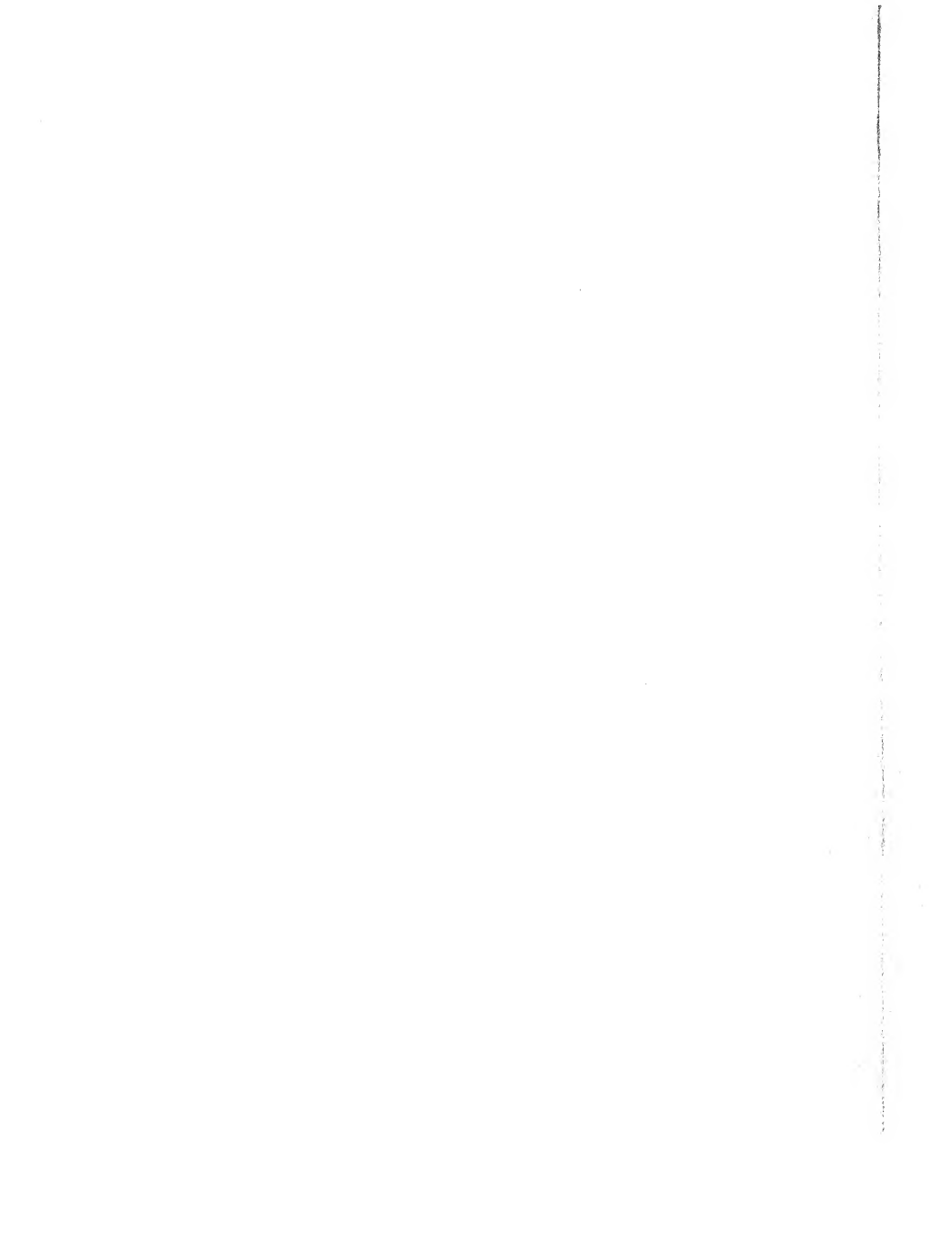
The low per capita income in terms of dollars (less than

1. The wholesale price index from 1938 to 1944 was as follows:

1938	100.0
1939	101.3
1940	126.6
1941	175.3
1942	339.6
1943	590.1
1944	458.9



THIS IS AN AMBULANCE, an ox-drawn, wooden-wheeled cart of ancient design, approaching a modern hospital in a Turkish city.



\$150 in 1944) should not be taken too literally, for a number of reasons. There is a good deal of doubt that the conversion of figures of income in one currency to terms of another currency by the use of foreign exchange rates can throw much light on the living levels of the income recipients, especially if consuming habits of the two countries differ widely. In the case of Turkey, it must be remembered that a large majority of the population is engaged in subsistence agriculture and obtains food, shelter, and even some cloth-

TABLE 4

ANNUAL INCOME PER CAPITA, 1936, 1942, 1943 AND 1944

Year	1938 Prices	Current Prices	
	( <i>Liras</i> )	( <i>Liras</i> )	( <i>Dollars</i> ) <sup>a</sup>
1936	82.10	82.10	(29)
1942	102.82	349.19	(123)
1943	76.10	449.06	(159)
1944	90.72	416.33	(147)

Source: Based on data supplied by Minister of Finance.

a. Computed on basis of 2.83 TL to the dollar.

ing, without the use of much money; these products are not included in the national income figures.

There are, nevertheless, certain obvious conclusions that can be reinforced even by such rough figures. One is that the industrialization of Turkey has made but slight progress, since cash incomes play so small a part in the economy. The second is that such industrialization as has taken place has had little or no discernible effect in raising the real incomes of the population, at least between 1936 and 1944.

The low per capita income cannot be attributed to any pressure of population on resources, but only to primitive techniques and a low level of economic organization.



## GOVERNMENT FISCAL POLICY

*The National Budget*

The national budget covers only direct activities of the government. It does not include the revenues and expenditures of the state-owned banking, industrial, mining or other enterprises which are set up as separate corporations.

The rise in budgetary expenses for the past fifteen years does not reflect much increase in civil governmental activity. The largest increase is for defense; otherwise the growing cost is largely accounted for by rising prices and wages. The budget has as a rule approximated one tenth of the national income.<sup>2</sup>

The war inflation cannot be traced in any large measure to a budgetary deficit. While there have frequently been deficits, they have not been large, and the corresponding increase in the debt has been moderate. Total internal debt has been regularly about equal to annual expenditures. The debt has largely been financed, in turn, not by loans from the Central Bank or other banks, but by sale of bonds to the general public. Government bonds in Turkey offer the chief outlet for savings, because there is so little opportunity for private investment.

The estimated ordinary budget expenditure for 1947 totaled 1,021 million liras (\$361 million). Of this amount defense was allotted almost 24 per cent, in addition to nearly 4 per cent for the gendarmerie and 3 per cent for the Department of Public Safety, plus a special national defense item of "extraordinary expenditures" amounting to 115 million liras. It has been reliably estimated that if military items under other budget headings are included, defense accounts for 50 to 60 per cent of the total budget. The next largest

2. Budget expenditures from 1940-1941 to 1943-1944 were as follows (in thousands of liras):

1940-1941	560,993
1941-1942	603,070
1942-1943	878,014
1943-1944	1,094,118

item was 11 per cent of the ordinary budget for the Ministry of Finance. This covers debt service and any grants to be made to state economic enterprises. Education was allotted about 10 per cent; public works 8 per cent; health and social welfare 4 per cent; Ministry of Justice 4 per cent; agriculture 3 per cent. All other items were minor. (See Appendix Table 27.)

Twelve subsidiary or annexed budgets cover activities such as monopolies, state railways and other transport and communication services, educational and religious institutions. These do not cover the state industrial or mining enterprises.

### *Balancing the Budget*

The grand total of estimated revenue was 1,021 million liras, exactly balancing the ordinary budget, and leaving a deficit equal to the extraordinary defense expenditure of 115 million liras. It was planned to cover this deficit by long-term internal loans of 80 million liras, an issue of Treasury bonds of 26 million liras, and an Agricultural Bank loan of 9 million liras for irrigation works. During the year 1947 both expenditures and receipts were increased above the budgeted figures.

Current revenue (1,021 million liras) comes mainly from taxation, but a minor share is derived from net receipts from state monopolies, revenue from sale of state property (mainly land), lotteries, printing office, Mosul oil and the like (about 12 per cent in all). Of the taxes, only 18 per cent are levied on earned income and capital; most of the other receipts are indirect taxes or are derived in some other way from the ordinary expenditures of the people. Transaction and consumption taxes and customs duties comprise nearly 35 per cent, and there are a large number of other special taxes for national defense, stabilization, "crisis," air force, etc. (See Appendix Table 28.)

The national budget thus presents a fairly conventional picture of prudent finance. The origin of inflation must be

sought elsewhere. The principal criticism, as far as this budget is concerned, relates to taxation policy, which will be discussed in a separate section.

### *The National Debt*

No comprehensive statement on Turkey's public debt has been published by the government since 1929. Table 5 shows such figures as are available for recent years.

TABLE 5  
NATIONAL DEBT, 1944-1947

	1944	1945	1946	1947 <sup>a</sup>
		(Millions of Liras)		
Grand total	—	1,234	1,909	1,653
External debt—funded	—	335	782 <sup>b</sup>	559
Internal debt	1,114	899	1,127	1,094
Funded	—	299	297	332
Floating	—	600	830	762
		(Millions of Dollars)		
Grand total	—	(678)	(675)	(584)
External debt—funded	—	(184)	(276) <sup>b</sup>	(198)
Internal debt	(612)	(494)	(398)	(387)
Funded	—	(164)	(105)	(117)
Floating	—	(330)	(293)	(269)

*Source:* Compiled from reports of the Budget Committee of the Grand National Assembly, published information on the national budget and announcements, oral and written, by the Minister of Finance.

a. 1947 figures do not include any of the postwar credits from the United States and the United Kingdom, which might easily increase the debt by 100 million liras (\$55 million) plus whatever is drawn on the 1947 military aid program.

b. This figure includes part of the United States credits made available after the war.

*Note:* Dollar figures for 1944-1945 are based on the predevaluation rate of 1.82 TL to the dollar; those for 1946 and 1947 on the postdevaluation rate of 2.83 TL.

The external debt is almost entirely funded. The doubling of this debt from 335 million liras in 1945 to over 780 million liras in 1946 was due not to new borrowings so much as to the devaluation of the Turkish lira in September of that year. The columns showing the debt in dollars indicate a reduction of the *internal* debt which did not actually occur, but is due to statistical conversion at the new rate of exchange.

The foreign obligations represent in small part a residue of the old debt of the Ottoman Empire. Over 80 per cent of the total shown in Table 5 is owed to the United Kingdom, chiefly for loans made during World War II. The remainder arose from earlier loans by Russia and France, and from credits extended during the war by the United States. The figures shown for 1946 and 1947 may be subject to increase on account of drawings on Export-Import Bank credits from the United States, United Kingdom credit for purchase of aircraft and the United States military grant of 1947. The United States credits through 1947 total about \$140 million, the British credit was for £4 million (\$16 million), since largely paid off.

### *Servicing the Foreign Debt*

Only 19 per cent of estimated service charges on the debt owed to the United Kingdom is payable in gold or foreign exchange. The Russian debt carries no interest charge, and is payable in goods or Turkish currency. Nearly all the costs of the French loan are likewise payable in goods or Turkish liras. The terms of the United States loans are not known at the time of this report, but presumably these also will be at least in part repayable in liras, goods or the transfer of real property. Such burden as the foreign debt represents does not therefore constitute a serious problem in foreign exchange; rather it depends largely on Turkey's ability to export sufficiently large amounts directly to the creditor governments. These governments will undoubtedly be glad to accept such products as chromium ore, wheat, coal and copper.

The exact cost of servicing the foreign debt is not available. In the 1946 budget about 22 million liras (\$12 million before 1946 devaluation) was listed for debt service; of this amount less than one quarter was required in gold or foreign exchange. In addition to the amount owed by the central government, sums have been borrowed abroad by

the provinces and by state industrial enterprises; the total of these borrowings is estimated at about one third the national foreign debt. Since Turkey's present export surplus is in the neighborhood of \$75 million, there is no immediate problem of transfer, even though the foreign debt should grow considerably. But if the abnormally large exports and high prices of the war and postwar period cannot be continued as competition comes back into world markets, greater difficulty will be encountered. Any increase in foreign debt charges will also require either budgetary economies or higher tax receipts, and taxes are already a heavy burden on Turkey's existing volume of production.

The present reserves of gold and foreign exchange are, however, ample. At the close of 1946 the Central Bank had a reserve of \$230 million in gold, at the U.S. price of \$35 an ounce. This amounted to 650 million liras, after the devaluation of the lira in September of that year, or more than 68 per cent of the currency in circulation, plus other media of exchange. In addition, the balance of dollar and sterling exchange was about \$70 million (198 million liras after 1946 devaluation), even following the relaxation of import restrictions near the end of 1946.

### *Internal and Floating Debt*

The funded internal debt includes railway bonds, national defense bonds, savings bonds and recovery bonds. Between 1935 and 1945 relatively high rates of interest were offered; 7 per cent was not unusual. In recent years the interest rate has declined; a 1946 issue carried 6 per cent and a 40-million-lira savings bond issue of 1947 only 4 per cent. Government bonds have a ready sale.

The floating debt, according to the Minister of Finance, consists of short-term borrowings from the Central Bank to meet temporary needs, one-year Treasury bonds sold to banks and to the public, and current accounts payable (excluding salaries). The policy is to consolidate the floating debt as rapidly as possible, and some progress has been made in that

direction. It is hoped to reduce it in part from budgetary surpluses and in part by funding. In addition, there will be used for this purpose a substantial "profit" realized by the government in its holdings of gold and foreign exchange as a result of devaluation of the lira. This "profit" is, of course, merely a revaluation on the books; neither the gold nor the foreign exchange has any greater purchasing power in foreign trade than before, and neither is disposed of within the country. In a sense the gain must be merely an offset to the upward revaluation of the foreign debt in terms of liras which the devaluation of the lira made necessary.

The total national debt in 1947 is approximately half as large again as the annual budget and is about one fifth the national income. These fractions are small in comparison with most other countries, including the United States. As far as budgetary considerations are concerned, therefore, Turkey's governmental finances are unusually sound. Both external and internal debts are of readily manageable proportions.

### THE BANKING SYSTEM

The Turkish banking system consists of two entirely separate sectors—one, private banks of the general kind known in the United States, which receive deposits and make loans, and the other, great governmental institutions which finance, own and direct state enterprises or agriculture, such as Sümer Bank, Eti Bank and the Agricultural Bank. This section is concerned only with banks of the first type.

Because of the injunction in the Koran against usury, Turkey had no institutional banking system in the western European sense until after the middle of the nineteenth century. Banking functions, such as they were, were performed by non-Moslem money-changers. From biblical times money-changers rendered three types of service. First, they exchanged currency of one issue for that of another—a necessity in a region visited by traders from all parts of the world,

and with coinage subject to debasement from time to time by the issuing governments. Second, they made loans. Private borrowers could pledge tangible collateral or discount future receivables. Governments could discount future tax revenues. Third, the money-changers in effect became tax collectors. Taxes were often levied in kind, and were farmed out to the money-changer in exchange for a cash advance. The money-changer disposed of the produce or animals in his own way and was entitled to any profit he could make.

Successful money-changers, particularly Jews and Armenians, accumulated vast fortunes. Through family and other associations they were able to conduct international financial transactions and gained a large share of the money wealth of the Empire. As would be natural under such circumstances, interest rates were high, and sharp practices were frequent. The combination of religious condemnation for the ethics of their calling and the often strained relations between borrowers and lenders contributed greatly to the traditional Turkish hostility toward these minorities.

### *The Growth and Decline of Private Banking*

In an effort to stabilize the Turkish currency in terms of sterling, the government formally recognized and chartered the Bank of Constantinople in 1845, which grew out of a partnership between two large moneylenders. This bank was forced to close its doors in 1852. In 1856 the Ottoman Bank was formed with British private capital. This bank became the fiscal agent of the government in 1863 and was empowered to issue currency. About the same time French capital was admitted to the enterprise. From that time until after the founding of the Republic in 1923 the Ottoman Bank, under joint British and French control, was the dominant factor in Turkish banking. Other foreign banks flourished briefly in the course of financing foreign enterprises under the capitulations, but few of them survived later than the end of the nineteenth century. The Agricultural Bank

and the Savings and Loan Bank were established before 1900 by the government, but neither became important until after the Revolution.

Soon after the Revolution the Ish Bank was founded with private capital to help carry out the purposes of the government in financing industry. By 1933 there were 54 banks in Turkey. Of these 51 were privately owned, 44 by Turks. This was a natural development accompanying the growth of private enterprise which characterized the first period of industrial development.

The inauguration of Etatism, however, together with the establishment of the state-owned Sümer Bank and other state banks and industries, discouraged the growth of private banking institutions. Private banks could no longer regard loans for industrial or commercial projects as normal risks. Discrimination against foreign banks, added to the new difficulties encountered by Turkish banks themselves, prevented the establishment of branches in Turkey. Between 1933 and 1943 the number of private banks decreased from 51 to 37.

The lack of American banks or branches in Turkey at present is a distinct obstacle in the path of normal commercial relations between the two countries, and creates problems for anyone who may wish to arrange for Turkish use of American goods or services.

### *The Central Bank*

In 1930 the central banking functions hitherto exercised by the foreign-owned Ottoman Bank were transferred to a newly created Central Bank. This was not so much an expression of Etatism (which came into prominence only several years later) as a development which was to be expected in any case, because of the nationalist character and aims of the Revolution.

The project was under careful study before the decision to establish the Central Bank was made, and foreign experts were called in to advise in the drafting of the law. Although



some of them recommended that the formation of the new bank be postponed to a more favorable time, the law establishing the bank was passed in June 1930, and its actual operation began in October 1931.

In its organization and functions, the Central Bank exhibits many similarities to the Federal Reserve Banks in the United States. It fixes the rate of discount, acts jointly with the Treasury to stabilize money, acts as fiscal agent of the Treasury and has the exclusive privilege of issuing money. Banks, however, are not required to maintain deposits with it, although some clearing operations among banks are carried on through it.

The capital of the bank consists of 15 million Turkish liras (\$5.3 million after 1946 devaluation), of which 10.5 million (\$3.7 million) has been paid in, the balance being due on call from stockholders. There are four classes of shares. Group A shares, comprising 25 per cent of the capital, are reserved for government institutions; 15 per cent must be paid for in gold. Group B shares are reserved for national banks in which a majority control is held by Turkish citizens. Group C shares, comprising not more than 10 per cent of the total, may be owned by banks operating in Turkey but not eligible for Group B shares. Group D shares may be held by Turkish commercial institutions and private citizens.

The Board of Directors contains two members representing the government directly, two members elected by the holders of B and C shares, one member elected by holders of D shares, one member elected by delegates from the Chambers of Commerce and of Industry and two members elected by the agricultural cooperatives. The stockholders meet once a year to examine the report and balance sheet, and to vote possible changes in the statutes of the bank—changes requiring a two-thirds vote.

A special committee determines the discount and credit policy of the bank. This committee is composed of the Presi-

dent of the Board of Directors, two members chosen by the Board, and the Director General and Assistant Director General of the bank. Any disagreement between this committee and the Director General is arbitrated by the Minister of Finance.

The Director General and the Assistant Director General, both appointed for five years, are selected by the Board, subject to the approval of the Council of Ministers and the President of the Republic.

### *Central Bank Reserve and Currency*

Paper money in circulation at the time of the establishment of the Central Bank in 1931 amounted to 158,748,563 Turkish liras (about \$75 million at the 1931 rate of 2.11 liras to the dollar). This currency, issued during the rule of the Ottoman Empire, was to be redeemable in gold, though gold payments were suspended during World War I. Thereafter the pledge was carried out only to a limited extent. The Republic declared the currency to be legal tender, backed only by the credit of the government. Nevertheless, the purpose of resuming the gold standard and gold redemption was not abandoned.

When the Central Bank was established, the government passed over to it the liability of redemption at some future time when the currency should be stabilized. To cover the liability, the government paid to the bank 500,000 Turkish liras in gold, and the balance in Treasury bonds, to be amortized at the rate of one per cent of the credits provided each year in the ordinary, annexed and special budgets of the state.

The Central Bank can issue its own notes not only in exchange for this Ottoman paper money (which was retired during the spring of 1947), but on several other forms of security. In effect, the gold standard has been abandoned except to a limited extent in international exchange, though

the gold reserve is ample, amounting to 68 per cent of the currency in circulation at the end of 1946.

Notes can now be issued with the following kinds of backing:

1. Gold or notes secured by gold
2. Foreign currencies convertible into gold, or regarded as a means of international payment
3. Commercial paper and advances secured by commercial paper
4. Government obligations, obligations guaranteed by the Treasury, and advances secured by such obligations
5. Extraordinary and temporary advances given to the Treasury

Thus the currency circulation can be increased by government borrowing, by borrowing on the part of government enterprises or by private borrowing. The rate of increase was especially rapid between 1938 and 1942. The amount of currency in circulation in 1938 (about 194 million liras) had increased over fivefold by 1947. (See Table 6.)

Since in Turkey payments are made by currency to a far greater extent than in the United States, the expansion of the currency in circulation is a fairly reliable measure of the source and extent of inflation.

### *Operations and Deposits of Private Banks*

In the larger cities the private banks serve much the same functions as in Western countries, with the exception that the use of checks is not general; only the principal business concerns employ them. The banks receive deposits, discount commercial paper and engage in foreign exchange transactions. Commercial banks are not allowed to purchase or sell real estate or to make loans on it. The Savings Bank of Istanbul and specially chartered savings institutions are exempt from this prohibition. Banks make few investment loans to private business. Of course they can buy government bonds.

Savings deposits are defined as all deposits not made by public institutions, companies or individuals engaged in business. They must be kept separate from other funds.

Interest is paid on nearly all deposits, both time and demand deposits, and ranges from 1.5 per cent to 4 per cent and above. Interest charged by the banks differs according to term and the current demand for credit. Rates on three months' paper are commonly 8 per cent in the cities and may

TABLE 6  
CURRENCY IN CIRCULATION, 1939-1947 \*  
(In Thousands of Liras)

Year	Currency in Circulation	Percentage Increase Over Preceding Year
1939	281,460	45
1940	403,556	43
1941	512,473	27
1942	733,944	43
1943	802,110	9
1944	960,834	20
1945	881,212	- 8
1946	931,444 <sup>b</sup>	6
1947 (March 29)	976,800	5

Source: Based on Central Bank deposits, end of each year.

a. See wholesale price index on page 144, which roughly parallels increase in currency in circulation.

b. The September 7 figure was 849,366 thousand liras.

run as high as 12 per cent in the interior. With the expansion of funds during the war, competition among the banks has become keener, since the opportunities for the use of private capital are strictly limited.

The growth of private bank deposits during the war years is shown in Table 7. Between 1940 and 1947 total deposits increased more than two and a half times.

The total amount of these deposits, it will be noted, is smaller than that of the currency in circulation. The growth of business deposits (those in the "Other" columns) is about

the same as the rate of expansion of currency or the rise of wholesale prices. These figures confirm the impression that the private banking system plays a minor role in the Turkish economy. Although expansion of private bank loans (which are not separately listed in these figures and may have risen less than deposits) doubtless has been a factor in inflation, the chances are that the increase in deposits reflects mainly the enlargement of the currency arising from other sources.

TABLE 7  
DEPOSITS IN THE THIRTEEN IMPORTANT PRIVATE BANKS OF  
TURKEY, 1940-1947

Date	Total All Deposits		Savings			Other		
			Total	Sight	Time	Total	Sight	Time
	(Mil- lions of Liras)	(Mil- lions of Dollars)	(Millions of Liras)					
Dec. 28, 1940	274.6	(97)	97.7	57.5	40.2	176.9	158.6	18.3
Dec. 27, 1941	374.9	(132)	118.4	77.9	40.5	256.5	215.4	41.1
Dec. 31, 1942	369.6	(131)	116.5	77.6	38.9	253.1	216.3	36.8
Dec. 31, 1943	420.3	(149)	137.2	99.2	38.0	283.1	255.5	27.6
Dec. 30, 1944	498.4	(176)	183.7	142.7	41.0	314.7	299.1	15.6
Dec. 29, 1945	528.2	(187)	219.7	165.9	53.8	308.5	284.8	23.7
Oct. 31, 1946	607.6	(215)	283.0	209.6	73.4	324.6	293.4	31.2
Mar. 31, 1947	702.8	(248)	330.8	245.9	84.9	372.0	342.4	29.6

Source: Data furnished by Minister of Finance.

Note: Dollar equivalents are computed at rate of exchange after 1946 devaluation (2.83 TL to the dollar).

These deposits exist almost wholly in the large cities, and do not indicate the accumulation among the people at large.

In spite of the growth of savings, there is reason to believe that they might be a great deal larger if banks were as readily available and if individuals were as willing to use them as in Western countries. Few banks or branches exist outside of the principal cities. There is a traditional distrust of moneylenders, even of business partners or anyone else who might have knowledge of or access to the individual's money. There is a lack of understanding of the possibilities

of capital accumulation as a means of creating new wealth. Above all, there exists a fear of disclosing possession of taxable property.

### *The Banking Law*

The banking law of June 1, 1936 governs the private banks. Banks must be either corporations or limited stock partnerships, and must obtain authorization to begin operations from the Ministers of Finance and Economy. Foreign banks must be authorized by the Council of Ministers. Branches cannot be opened without separate authorization.

Before a bank or a branch can open, paid-in capital must be at least one million liras (\$353,000) in a city of more than 250,000 population, and correspondingly smaller amounts in smaller cities. Details of the organization and manner of operation are specified. There must be an annual meeting of stockholders, a Board of Directors, an Executive Committee and a Director General, who is a member of the Executive Committee. In the case of a foreign bank, a committee at the head office (if there are branches), one member of which is the director of the bank, exercises the power of a Board of Directors and an Executive Committee.

No bank can make loans to its own employees, and loans to any one person in excess of 10 per cent of the capital and reserve of a bank are forbidden, with certain interesting exceptions, as follows:

The limit is raised to 60 per cent on loans secured by gold or government bonds.

On commercial paper representing goods for export, a bank may loan to a single borrower 20 per cent of its capital and reserve. On merchandise collateral it may loan 15 per cent.

There is no limit whatever on loans to a national industry in which the state participates, or to an establishment in which the bank owns 51 per cent of the stock. Nor is there any limit on loans to the Ministry of

Finance, to operations relating to letters of guarantee covered by specie or state internal obligations or a guarantee of a foreign bank agreed to by the Ministers of Finance and Economy, or to operations between banks.

Various other provisions govern the procedure of making loans of specified types and sizes.

Banks must maintain a reserve of 15 per cent of deposits. The reserve must consist of interest-bearing obligations of the state or other first-class securities bearing as high an interest. Thus the possibilities of budgetary inflation are theoretically unlimited. Excess reserves will be purchased by the Treasury at the request of the bank, at a price certified by the Central Bank.

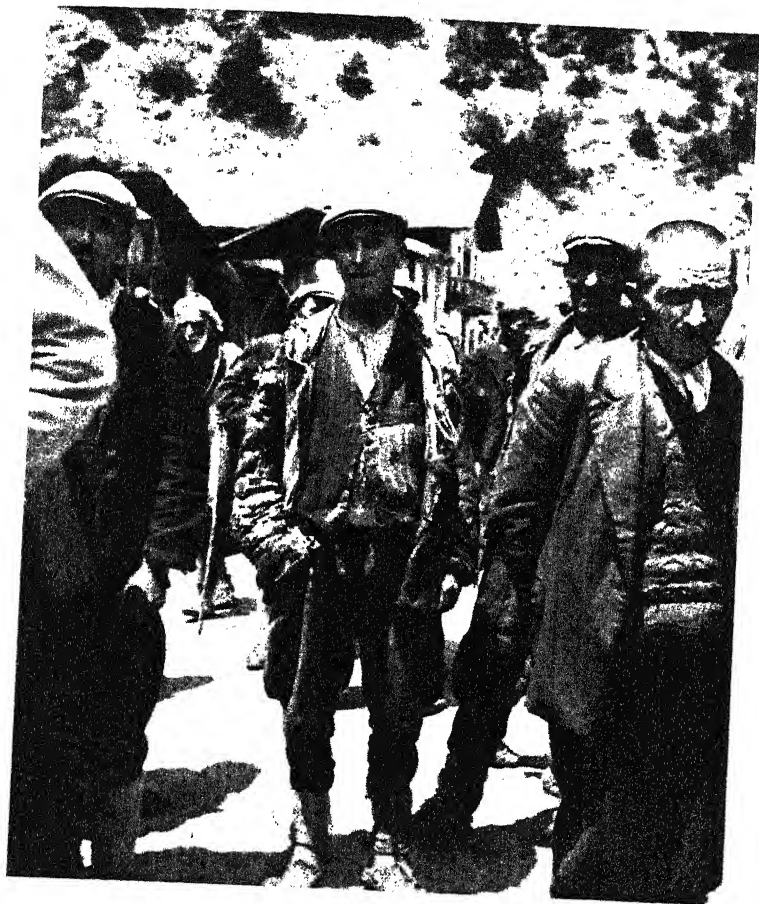
There are special provisions for the protection of savings depositors, limiting the ratio of such deposits to capital and reserves, and giving savings depositors special rights to assets in case of failure.

The form of bank statements is prescribed and their publication is required. Bank examiners are provided for.

### INFLATION AND DEVALUATION

The inflation, which is clearly traceable in Turkish wholesale prices and the expansion of currency in circulation, is not due in major part to deficit financing of the regular national budget. While defense expenditures have risen markedly, deficits have not been continuous and those which have occurred have not increased the debt to unmanageable proportions. The foreign debt has not constituted a drain on fiscal resources, while a large part of the internal debt has been financed by the sale of government securities to individuals and savings institutions.

Though an expansion of private bank deposits has occurred, there is little evidence that borrowing by private enterprise is the source of inflation. Private enterprise does not play a large enough part in the Turkish economy to be



GOOD CLOTHING IS SCARCE for Turkish peasants who mix traditional native garments with Western-type apparel.



1. The first part of the document is a list of names and their corresponding addresses. The names are listed in a column on the left, and the addresses are listed in a column on the right. The names are: John Doe, Jane Smith, and Bob Johnson. The addresses are: 123 Main St, 456 Elm St, and 789 Oak St.

of decisive importance in increasing the circulating medium. Even if an increase of bank credit to private borrowers accounted for the entire growth of deposits, as is extremely unlikely, this influence alone would have caused only a minor part of the inflation. It is probable that the increase of deposits reflects the growth of payments from agencies outside the domestic private sector.

One obvious source of rising prices has been Turkey's foreign trade during and since the war. Although complete figures on the balance of payments for recent years have not been published, the merchandise balance alone is decisive; in the current account invisible items have been of distinctly minor importance. Turkey receives virtually no income from foreign investments or from shipping, banking or insurance services; there has been little tourist traffic. Her foreign obligations have not been large. She has had an export surplus of merchandise ever since 1939, tending gradually upward from 9 million liras (\$5 million) in that year to 92 million liras (\$50 million) in 1945 and 208 million liras (\$73.5 million) in 1946. (See Appendix Table 29.) Rapid expansion of foreign demand normally would be expected to constitute a considerable inflationary force, except in so far as it was balanced by an increase in physical production, and no great increase has occurred.

The first effect of the war was to restrict both exports and imports. By 1942, imports had recovered to the prewar level, while exports began to soar above it. Purchases by the belligerents of copper, chromium and other materials, as well as of food products, coupled with the rise in world prices, increased the excess of incoming payments. Meanwhile internal prices of grain and textiles, set by government policy to reflect increases in the price of imports, rose. Both internal trade and foreign trade were almost entirely in the hands of state agencies. They required larger funds, and these were issued by the Central Bank. Apparently these

advances did not, in most cases, pass through the hands of the private banking system at all.

Another important source of inflation, which it is impossible to check in detail because of the lack of aggregate figures, consists in the operation of the great state banking and industrial enterprises, which do not enter into the national budget. The Agricultural Bank has extended large amounts of credit both to farmers and to state undertakings. The Ish Bank (nominally a private institution but in effect a state agency), Sümer Bank and Eti Bank have financed manufacturing and mining enterprises both private and public, though public enterprises are predominant. In this way great expenditures have enlarged the incomes of state employees and others, while the increase in production of goods and services available to the individual consumer has been negligible. Even in a free market, this process would increase prices of consumer goods except in so far as consumers laid aside larger amounts in savings. In Turkey it has been the deliberate policy of the state to keep prices of food and textiles high.

### *Devaluation*

On September 7, 1946 the lira was devalued in terms of foreign exchange, the value falling from 1.82 to 2.83 liras per dollar.<sup>3</sup> The objectives of this change as stated by the Minister of Finance were: (1) to stimulate exports; (2) to bring Turkish currency into closer relation with realities before joining the International Monetary Fund; (3) to increase the purchasing power of Turkish producers by increasing the lira price of exportable goods.

There was no immediate necessity to stimulate exports, since Turkey was already selling abroad virtually every surplus available for the purpose. The world-wide shortage of food, coupled with the appearance of an export surplus of Turkish wheat, would have kept up exports in any event.

3. See footnote on page 25 for explanation of exchange rates used in this survey.

As a matter of fact Britain, which bought the wheat, was charged as much for it in pounds sterling as if devaluation had not occurred.

The purpose of fixing a lower exchange value before joining the Monetary Fund may have been a reasonable hedge against a future when world demand and prices might fall. It would certainly be more difficult to alter the exchange value of the currency as a member of the Fund.

What Turkish producers can gain is problematical. Any increase in internal prices which occurs would tend to cancel the first objective of encouraging exports. The immediate gain from the sale of wheat and other crops to foreigners at the higher lira price went to the government, because the 1946 crops had already been bought or contracted for at the old internal price. It is estimated that internal prices rose about 15 per cent between September 7, when the devaluation occurred, and the end of 1946.

Certainly the change must have disadvantages as well as advantages. It raises the price of imports and the cost of servicing the foreign debt. It would appear to make more difficult any counterinflationary measures. What its long-term effect will be remains to be seen, but it is probable that the main tangible result will be a further rise in internal prices.

Obligations for foreign payments may be increased by relaxation of exchange controls which occurred in 1946 and 1947. These controls had previously made it almost impossible for foreign investors in the country either to withdraw profits or to repatriate their capital. A decree of May 1947 authorized the Minister of Finance to make agreements with foreign investors guaranteeing that profits or capital might be converted into foreign exchange. This decree represents a realization that it will be impossible to attract foreign capital for the long-term investments which could benefit the Turkish economy as long as a special permit would be required for every transfer of any resulting gain to the in-

vestor. If the guarantee is in fact a guarantee by the Central Bank and is explicit enough in its terms, it may open the way for important development. Otherwise it may not lead to appreciable results. Devaluation will tend to increase any burden of foreign debt owed to private investors.

### FOREIGN TRADE

The foreign trade of Turkey has for many years consisted of the export of natural products, plus a few handicrafts, and the import of manufactured goods, plus a few articles of food. In the most general terms, there has been no fundamental alteration in the character of this type of exchange.

The principal exports have been and still are agricultural specialties in which Turkey enjoys a comparative advantage: such crops as tobacco, nuts, raisins and figs. Cereals and beans are also exported; a net export surplus of wheat developed for the first time in 1946. During the war, exports of ores, particularly chromium and copper, increased in importance, but their value remains a small percentage of the total.

Since the establishment of the Republic, the declared purpose of the government to industrialize the nation and make it more self-sufficient has brought about a shift in emphasis from the import of manufactured consumer goods to the import of capital equipment. Turkey, however, still buys abroad many consumer goods and probably will do so for years to come.

If the industrialization of the country is to make progress, Turkey will continue to be dependent mainly on the proceeds of agricultural exports to pay for the machinery, and to provide at least some necessities for consumers. If internal manufacturing production grows and supplies more wares for the domestic population, as it already has done in the case of textiles and sugar, there will be plenty of other imported articles which a people with rising incomes will wish to buy abroad.

The Turkish economy is thus particularly vulnerable to world economic conditions, like the economies of other relatively undeveloped nations. The prices of the foods and other raw materials which Turkey exports are subject to wide variations in yield, demand and price; the prices of the manufactured goods which she imports are in large measure more stable, while any capital costs which she incurs in the form of foreign debt are relatively rigid. This situation is mitigated only by the fact that Turkey is not, like many other "backward" regions, dependent mainly on one crop or mineral, but exports a large variety of products. Nevertheless, some of her chief exports—tobacco, nuts and raisins—are "luxury" crops which the consumers can do without when their incomes decline.

Turkish foreign trade has also been characterized in recent years by shifts from one nation or group of nations to another, depending on political influences. In successive periods Turkey's chief trade has been first with Britain and France, then with Germany, then with Germany and Britain, and recently with the United States. Her foreign commerce is therefore subject to political uncertainties. In the past she has succeeded in making abrupt changes of this sort without great discomfort.

In 1938 Turkey's share in European trade amounted to about one per cent and in world trade to less than half of one per cent. In the same year the value of Turkish foreign trade was \$14.50 per capita of the population, a sum which, though it seems small, equaled about half the per capita income. This fact does not signify that the majority of Turks are directly dependent on exports or imports for the necessities of life; on the contrary, most of them live mainly on the products of their own country. What it does indicate is the importance of foreign trade in the commercial activity of the nation and in that part of its economy which gives rise to monetary income.

*Nature of Imports and Exports*

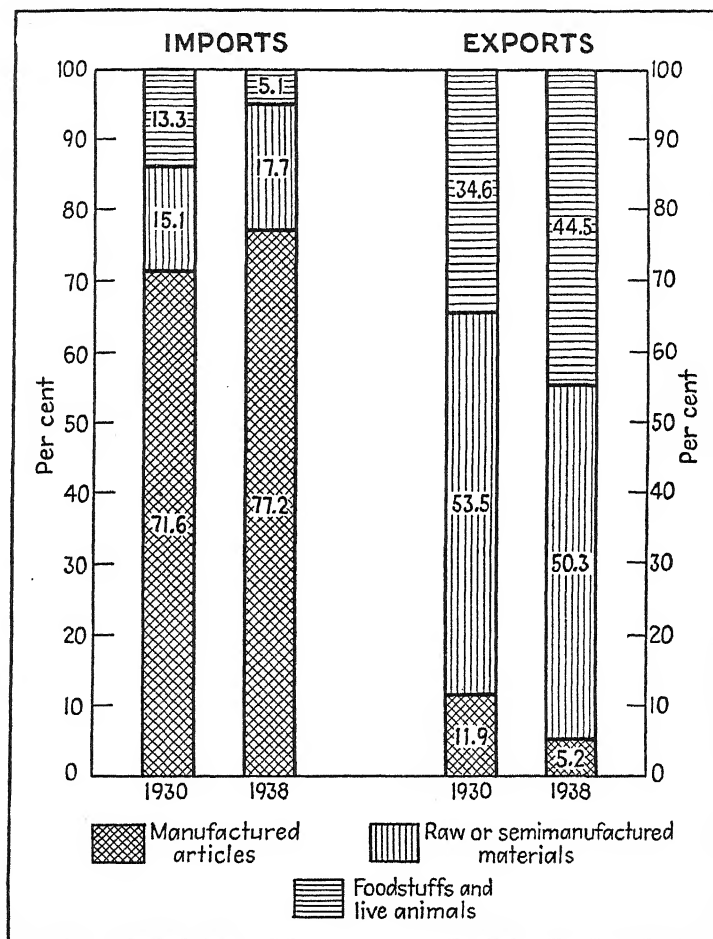
In 1938—which does not differ greatly in this respect from previous years—77 per cent of the imports by value were manufactured products, 18 per cent were raw or semi-manufactured materials and 5 per cent were foodstuffs and live animals. Exports, on the contrary, consisted 50 per cent of raw or semimanufactured materials (mainly tobacco, cotton and wool), 44.5 per cent of foodstuffs and live animals and 5 per cent of manufactured articles. (See Figure 1 and Appendix Table 30.) Figure 2 shows that the principal imports in 1938 were iron and steel, 19 per cent; machinery, 15 per cent; cotton manufactures, 11.5 per cent. The chief change from earlier years was a drop in cotton textiles and a corresponding rise in the other two items. The principal exports in 1938 were: tobacco, 27 per cent; raisins, 10 per cent; hazelnuts (filberts), 9 per cent; cotton, 7 per cent; wool, 5 per cent. Here the most notable change from previous years was a drop in exports of raw cotton. (See Figure 2 and Appendix Table 31.)

A more detailed listing of principal imports and exports in the years 1941-1946 indicates the continued importance of imports of machinery, iron and steel. Cotton goods and other clothing materials were also imported in considerable quantity, as were drugs and chemicals. The fact that Turkey has become self-sufficient in sugar is shown. There is little change in the relative importance of exports, except that cereals and legumes have risen to second place because of the net exports of wheat—a new development—and there has been a marked fall in exports of raw wool and cotton, owing to the growth of domestic textile manufacture. (See Appendix Tables 32 and 33.)

*The Trade Balance and Trade Controls*

Complete figures on Turkey's balance of payments, including invisible and capital transactions, are available only until 1933; these are omitted since they are mainly of histori-

FIGURE 1  
PERCENTAGE DISTRIBUTION OF TURKEY'S FOREIGN TRADE,  
1930 AND 1938



Source: Based on Appendix Table 30.

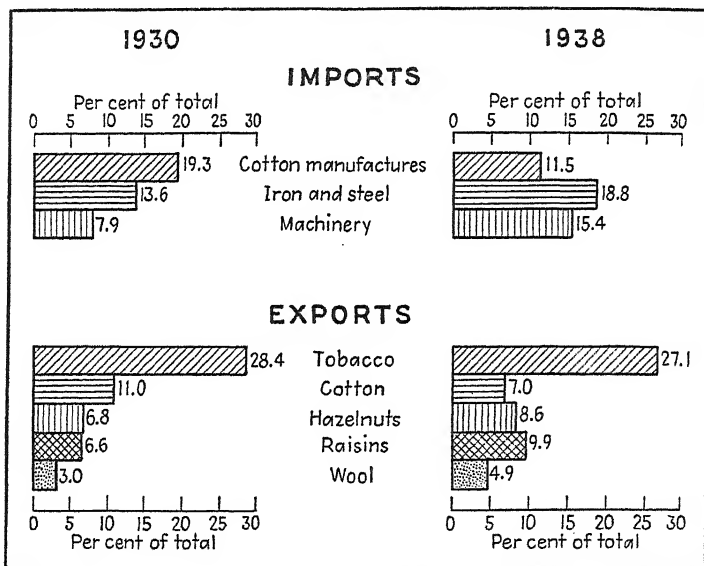


cal interest. In any case, merchandise trade has been by far the largest factor and has determined Turkey's ability to service a foreign debt.

From the establishment of the Republic until 1930, Turkey had an import surplus. Beginning in that year she developed an excess of exports, which has continued ever since, with

FIGURE 2

TURKEY'S IMPORTS AND EXPORTS OF IMPORTANT PRODUCTS,  
1930 AND 1938



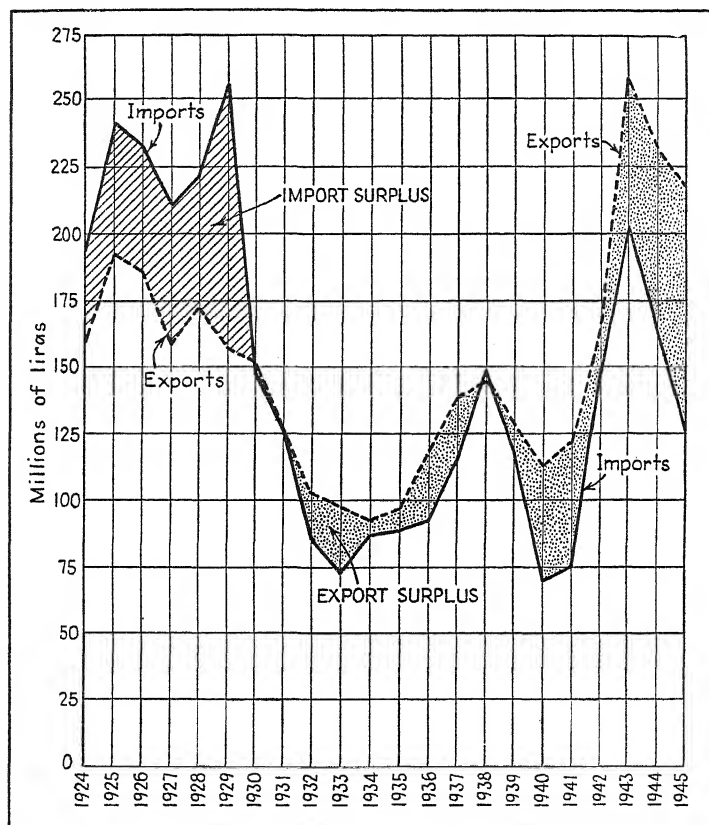
Source: Based on Appendix Table 31.

the single exception of 1938. This was achieved at the beginning, not by a growth of exports, but because, while the total volume of trade was shrinking during the depression, imports were cut more than exports. The decline was more marked in prices than in physical volume. Exports did not recover to the predepression value until the war demand raised prices in 1942. (See Figure 3 and Appendix Table 29.)

Under the Treaty of Lausanne, by which the victorious Allies recognized the revolutionary Turkish government, the capitulations of the Ottoman Empire were abolished, but the

FIGURE 3

TURKEY'S BALANCE OF MERCHANDISE TRADE, 1924-1945



Source: Based on Appendix Table 29.

Republic was obligated to assume partial responsibility for the debt of the former government by an annuity of 2 million gold pounds, rising to 3 million by 1952, and then tapering off. At the same time, by a commercial treaty, due to expire

in 1929, Turkey was compelled to admit a long list of imports from the Allies at the low rates of duty obtaining under the Empire. The years during which this commercial treaty was in force constituted a period of relative prosperity for the world, and Turkish trade was large in volume, but the foreign debt continually increased on account of a substantial excess of imports.

### *State Controls Under Etatism*

The expiration of the trade treaty coincided with the onset of the world depression, and shortly thereafter Turkey's policy of Etatism was adopted, with its rapid extension of state controls. Turkey enacted an increase of import duties as soon as she regained control of her customs. The rapid shrinkage in the value of exports, suffered during the period by almost all countries selling mainly raw materials, led to the usual shortage of foreign exchange, and resulted in the adoption of such familiar devices as clearing agreements and exchange control. Turkey's need for these controls arose, however, not only from the difficulty of importing the consumers' goods required by her population, but also from her plan for rapid industrialization of the nation under state auspices. It was essential to adopt some sort of barter system and regulate imports strictly in order that the desired capital equipment might be obtained.

The clearing agreement is designed to make sure that exports to the country with which it is made equal or exceed imports from that country. In a clearing agreement between Turkey and Germany, for example, each country would agree to purchase certain quantities of goods from the other. The marks earned by Turkey for exports to Germany would be utilized for payments to German merchants who sold goods to Turkey and for servicing Turkey's foreign debt to Germany. Any remainder would build up Turkey's store of foreign exchange. In negotiating these agreements, Turkey insisted on a margin of 20 per cent in her favor in order to

pay for invisible exports such as shipping and insurance. In the case of Britain, where such items might be large, the required margin was 30 per cent. These controls were effective in creating an excess of merchandise exports during the years of depression and prewar recovery.

With the coming of the war, further restrictions were imposed. The Ministry of Commerce placed an export tax of 10 per cent on a long list of commodities, and was empowered to fix minimum prices of exports. Associations of Importers, known as Birliks, were given a legal status by a decree of April 3, 1940, and were empowered to fix maximum prices paid for imports to prevent competitive bidding up of prices. The Central Bank exercised control over foreign exchange.

The controls over foreign trade thus built up by Turkey over a long series of years have been only slightly modified since the war. The Birliks have been largely abolished, but the idea behind them remains. Both Russian and German influence was of importance in the years when the policy was being formulated. A series of reports by German experts implanted Schachtian ideas in several branches of the civil service. Officially the government has denied any permanent reliance on bilateralism, but it is difficult to see how a nation in Turkey's circumstances could carry on the type of planned development of industry which has been in force without regulation of foreign trade and exchange.

### *The Direction of Turkish Trade*

In general, the direction of Turkey's trade is determined by the nature of the commodities imported and exported. Her exports—raw materials and foods—go mainly to industrial countries, while her imports—machinery and manufactured consumers' goods—come mainly from these countries.

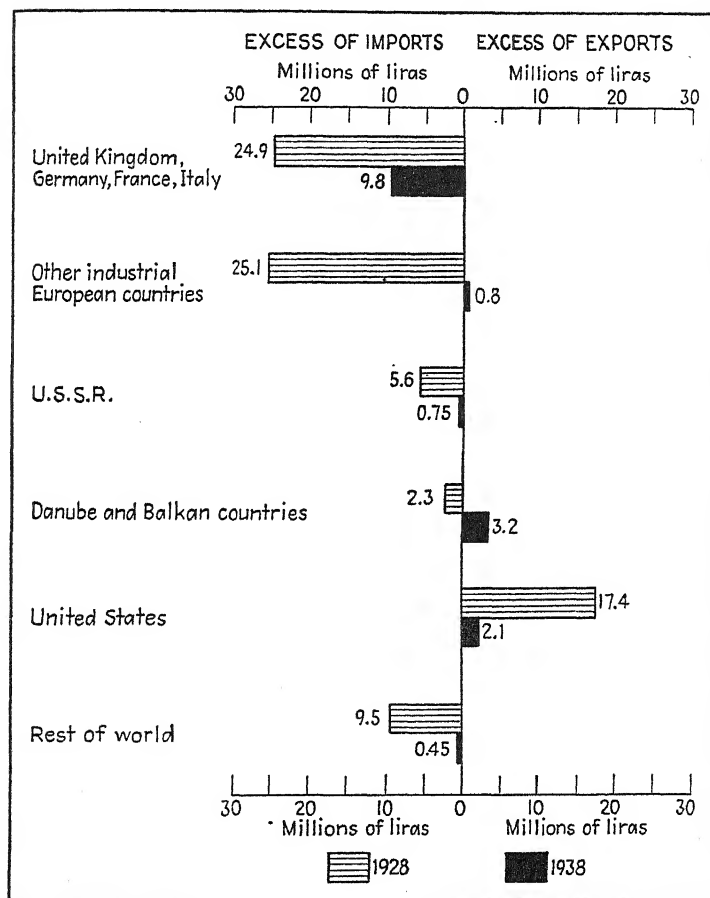
Before World War II, the industrial countries of western Europe supplied a little over 70 per cent of Turkey's imports

and took a slightly smaller percentage of her exports. The United States in 1938 had a 10.5 per cent share in Turkish imports and a 12 per cent share in exports. Danubian and Balkan states, which are similar in productive characteristics to Turkey and hence not complementary to her, supplied 3 per cent of her imports and took 5 per cent of her exports. The Soviet Union's share in both was less than 4 per cent, leaving 9 per cent for the rest of the world. (See Appendix Table 34 and Figure 4.)

During the prewar decade, the chief shifts in the direction of Turkish trade were responsive to the drive of the Third Reich under Hitler to take advantage of the depression by barter arrangements which would bind to Germany important sources of supply and outlets for her exports. In 1928 Germany supplied 14 per cent of Turkey's imports and took 13 per cent of her exports; by 1935 Germany's share in both had risen to 40 per cent; in 1938 Germany sold to Turkey 47 per cent of her imports and received 43 per cent of her exports. The principal sufferers were France, Italy and the United Kingdom. These three countries together furnished 37 per cent of Turkey's imports in 1928 and only 17 per cent in 1938. Britain's share of Turkey's imports declined relatively little, that of Italy and France much more.

During and after the war, further important changes took place. Germany's share of Turkey's imports dropped from 47 per cent in 1938 to 12 per cent in 1940, and she accounted for only 9 per cent of Turkey's exports in 1940 in contrast to 43 per cent in 1938. After 1944 Germany's trade with Turkey was almost eliminated. Britain's trade with Turkey grew with the onset of war and maintained a high level throughout the war years. The greatest gainer was the United States. In 1946 this country supplied 31 per cent of Turkish imports and received 20 per cent of Turkey's exports. Britain was second in both, with 19 per cent and 17.5 per cent. Trade with Italy revived somewhat in 1946, but France had almost disappeared as a factor in Turkish trade. Switzerland and

FIGURE 4  
TURKEY'S IMPORT OR EXPORT BALANCE WITH OTHER  
COUNTRIES, 1928 AND 1938



Source: Based on Appendix Table 34.

Sweden became high-ranking exporters to Turkey; Palestine was third as a recipient of exports, followed by Greece and Egypt. (See Appendix Tables 35 and 36.)

This immediate postwar shift is clearly due in large part to the economic prostration of Germany, Italy and France. Turkey ordered from the nations which could supply her needs and sold to those which could buy. Whether the primacy of the United States in Turkish trade will continue depends partly on the course of European recovery and partly on the future of Turkish industrial development and the role which this country may choose to play in it. Fundamental to all such considerations, of course, will be political and military developments. In this connection, it is pertinent to note that before the war the Soviet Union did not occupy a prominent place in the foreign commerce of Turkey and since then it has accounted for only a negligible share.

#### TAXES, LAW AND PRIVATE ENTERPRISE

The tax laws inherited by the Republic from the Ottoman Empire were based on no principle except the ability to collect. They contained the remnants of every successful device for extracting revenue from a reluctant population that had been invented by a grasping government for at least a century. The result was a confusing entanglement of levies, regulations and practices which were not adjusted to any rational plan for building up the economy. The evil repute of this system among the Turkish people was reinforced by the fact that under the capitulations, foreign agents had been in partial control of tax collection and the proceeds had largely gone abroad.

The Republic adopted in theory the principle of ability to pay, but the urgent need for more revenue in order to avoid foreign domination and to obtain funds for state enterprises resulted in little but the addition of new forms of taxation to the old. There was neither the time nor the skill to modernize systematically the entire tax structure, and the

Turkish economy itself was in such an early stage of development that an imitation of Western models of progressive taxation would have yielded little revenue.

Direct taxes include taxes on income, both personal and corporate, inheritance taxes and taxes on land, animals and other forms of property. All together they provide perhaps one sixth or one seventh of the budgeted national expenditures. In a nation of nearly 20 million persons, it was stated by a government official that income tax was actually collected from only about 6,000 persons, including companies.

Indirect taxes, too numerous to list in full, include transaction taxes based on the value of business transactions (estimated by such means as volume of business, turnover of stock, amount involved in a contract, duty paid), sales taxes, consumption taxes, road taxes, customs and various military and emergency taxes which are usually imposed as additional percentages on regular levies. Endless special taxes are aimed to garner revenue which has somehow managed to escape between the crannies of the standard assessments.

Although, according to tax theory in modern industrial states, indirect taxes bear more heavily on the general population than direct taxes because they cannot so readily be adjusted to ability to pay, some of the direct taxes in Turkey are themselves extremely burdensome. Even the nomadic herdsman is supposed to pay a tax on his flocks. In 1941 the government collected 21 million liras (\$11.5 million) on 43 million taxable animals.

### *Tax Evasion and Enforcement*

The natural response to such a tax system is a deep-rooted and all-pervading habit of tax evasion. Peasants, merchants, craftsmen and landlords alike had little reason to wish to support their Ottoman rulers, and still less to pay taxes to service the foreign debt. With the coming of the Republic there was an opportunity to appeal to patriotism in tax collection, but the ancient habits were difficult to eradicate. The



lack of far-reaching tax reform and the demand for increased revenue reinforced the reluctance of the taxpayers. While expenditures on public works rose from virtually nothing to 14 per cent of the budget in 1932, they dropped again during the first five years of Etatism to 3.5 per cent, and even today are only 8 per cent. Much of the money was spent for monumental public buildings and the erection of elaborate state factories, by foreigners with foreign equipment, which for the most part provided neither more goods nor cheaper ones for the use of the ordinary citizen. If, instead, the people had received better roads, more schools and irrigation systems, they might have been less reluctant to pay.

By 1942 numerous private merchants had accumulated fortunes on which they had certainly not paid taxes in proportion to their ability, even if they had not evaded their legal obligations. The nation desperately needed funds for armament, and consequently the government imposed the *varlik*, or capital tax, which is said to have yielded at least 250 million liras (\$137 million) in one year. The tax itself was severe; it also discriminated against unpopular minorities, a small number of whom were punished for failure to pay by brief exile to a barren region. This action gave rise to a storm of indignation, brought protests from foreign governments and caused the withdrawal of the tax.

Difficulty of tax collection has led to severe penalties against individuals even for technical noncompliance. Returns are subject to searching, and sometimes arbitrary, audit. A member of the Twentieth Century Fund team took pains to verify a case which accidentally came to his notice. An owner of a small cleaning and dyeing establishment who kept primitive accounts and was unable to read and write the new script relied on the advice of his banker in making his tax returns. An official audit resulted in recomputation of his taxes for a period of years. He would have been able to pay the arrears, but additional fines forced him to sell his business, which was earning the equivalent of \$5,000 a year,

and go to work at less than \$4 a day in the plant which he had built up with his own capital. The court which imposed the penalties had held him blameless of intent to defraud. This man was married and had five children.

Most state enterprises are legally subject to the same income taxes as private business, but it is generally believed that they are treated more leniently by the authorities because their books are legally exempt from audit by the tax examiner. Some state undertakings are entirely exempt from taxes.

### *An Economy of Dilapidation*

Rent, in Turkey, is not merely a cost to the tenant, it is also an index to the tax assessor of ability to pay. To paint a building or repair its roof may lead to a substantial tax cost. The Turkish tax system is reflected in the unpainted houses in which Turkish businessmen live, and in the tumble-down sheds, the dimly lighted and meagerly furnished offices in which they conduct their business. In Istanbul the consequences of placing a premium on dilapidation are seen in their full maturity.

Private capital, seeking avoidance of taxes by concealment, remains unproductive. Much of it is hoarded. It is a general practice to keep bank deposits and securities in a name different from that of the actual owner.

A member of this survey staff called on a successful businessman in his well-appointed office in an excellent location, leased by a company which made no profit and hence was not subject to income tax. His real business was conducted by an unincorporated institution in a poor quarter of the city, which paid only such taxes as it could not escape. The profits in this case were deposited in banks, but under the names of various relatives and trusted employees; nobody but the owner knew how large they were. This man said he would be prepared to put 10 million liras cash into a badly needed productive industry, if he were sure the state would

not enter the field or install hampering regulations. It is impossible to tell how much domestic capital might be found for development of the country if only its owners were encouraged to use it instead of hiding it.

### *Projected Tax Reform*

The need for a drastic change in the tax system has prompted several studies of the subject in the appropriate government departments. Because of the imminence of change, any prospective foreign investor could not base his judgment on the tax situation of 1947; in any case it would probably be necessary for an important private undertaking to negotiate a special agreement with the Turkish government before seriously considering any large investment.

The bills under consideration probably go as far as possible to improve the situation, in view of the nature of the Turkish economy itself. No truly scientific system of taxation, aimed with any accuracy at a given incidence or total revenue, would be feasible without much better figures of the national income or a good census of wealth-producing activities. What could be done is to install special tax systems for particular types of economic activity which it is desired to encourage, leaving the main body of tax legislation for future reform. Specific changes could smooth the path for mining developments, for the generation, distribution and consumption of electrical energy, for light industries such as the manufacture and assembly of agricultural implements, the processing of food and other consumer goods industries. Discrimination against foreign undertakings could be removed in lines where it was desired to invite foreign participation. An example of such discrimination is that while Turkish concerns are permitted to carry over operating losses from one year to the next, foreign-owned undertakings are denied this privilege. Men in Turkey with real responsibility for the advancement and security of the nation are strongly in favor of tax reforms of this nature.

The bills under consideration by committees of the National Assembly all relate to the income tax. They approach the subject in a practical way by separating income-tax payers into appropriate classes.

The *general income tax* is to apply to large incomes received not by companies but by individual business and professional men. It covers income from rents, dividends, interest, capital gains, revenue from fisheries, stone quarries and other natural resources. Agriculture and other types of business are specifically excluded from income tax. Criteria for inclusion in this category are rather complicated, such as the payment of more than 200 liras annual rental for business premises, the purchase of 30,000 liras worth of goods a year, or engaging in wholesale trade or specific types of business.

A *business and peddlers' tax* is to cover smaller businesses. Tax rates are to be progressive according to rental paid and amount paid out in wages. Peddlers and itinerant artisans who have no fixed place of business are to pay twelve times their average daily earnings.

A *companies' tax* is to cover the major business enterprises of the country. By separating them from individuals and small business, appropriate revisions to encourage the development of private enterprise should be made easier.

A fourth bill relates to the legal procedure of administering all three of the above taxes.

### THE ECONOMIC PICTURE AS A WHOLE

The picture of Turkey's economy which emerges from the financial information is clear enough.

It has been the purpose of the government to develop modern industry and make Turkey as nearly self-sufficient as possible. Machinery and many of the materials for the construction of industry have been imported. Exports from a mainly agricultural economy have been employed to pay for the imported industrial equipment—the familiar policy

of an immature economy. Meanwhile imports of manufactured consumer goods, though required in considerable quantities, have been stringently regulated to avoid an unfavorable balance of trade.

There is little or no indication that this program has resulted in any increase in material levels of living for the population as a whole, though intangible benefits have been gained.

The management of the regular governmental budget has been conservative in the sense that no national debt large enough to be embarrassing has been accumulated. The growing governmental expenses, however, have not led to many visible benefits to the people as a whole. The taxes necessary to pay for them have been levied in such a way as to curb productive uses of wealth by the citizens and to drive private capital into hiding.

Meanwhile large expenditures by state enterprises and loans by state banking institutions have led to expansion of the currency in circulation and price inflation. While international markets were partly responsible for the price rise, the industrialization program undoubtedly contributed heavily to it, since the money spent for the purchase of machinery and the payment of industrial wages did not result in anything like an equivalent enlargement of the production of consumers' goods.

### *Potential Investors*

The state industrialization program, combined with taxation and the legal system, has inhibited the development of private enterprise, both domestic and foreign. Turkish savings have gone largely into the purchase of government bonds. The only other considerable outlet for private capital is speculation in real estate, which flourishes especially during inflationary periods. Nobody can tell how much domestic private capital might be available for the development of industry, but the clamor for a change in policy which would

be more favorable to private enterprise suggests that more may exist than has generally been supposed.

If the Turkish government should borrow abroad for more internal development, it would, from a technical exchange point of view, be well situated to service the loan. To borrow another \$100 million might require annual payments of \$11,750,000, in addition to the approximately \$22 million now payable abroad. Yet such borrowing, and the internal expenditure which would accompany new projects, would merely increase inflationary pressure unless it leads to additional production of goods which can move directly into the export market, or of goods for domestic consumers which may replace those formerly imported.

If a more favorable atmosphere for private development of small and light industries making badly needed consumers' goods were to be created, an indefinite amount of domestic capital might be available; its productive use would in turn create more wealth and more savings. Such a development would be of far greater value to the Turkish people than foreign borrowings to enlarge state industries already over-expanded in relation to Turkey's ability to operate them efficiently or to make use of their products.

Since potential domestic investors, however, lack industrial know-how, Turkey could make good use of a limited amount of foreign capital, both public and private, provided it could be accompanied by the requisite staffs of trained personnel. For this development a thoroughgoing revision of present laws and official attitudes would be essential.

## Chapter 8

### SUMMARY AND CRITICAL ASSESSMENT

THE AIM OF THIS STUDY has been, not to describe all the achievements of the Turkish Republic, but to reveal the deficiencies in its present economic condition, since these are the points at which foreign aid might be required. The result is not presented as a full and balanced picture of the nation or of its recent history. Emphasis has deliberately been laid upon shortcomings, for the limited purpose in view. The appraisal is made not merely for purposes of general information but in order to lay the groundwork for judgments as to whether the United States, with its special types of assets, aptitudes and requirements, can make contributions to the improvement of the Turkish economy, and, if so, what kinds of contributions are called for and how they might be applied.

#### *Differences in Systems*

Turkey's economic organization differs in many respects from that of the United States; it differs especially in the fact that in Turkey there is more emphasis on investment, initiative and management by the state, while there has been far less development of individual, voluntary endeavor. This situation has a bearing on the kind of cooperation the United States can offer. There is no implication here that either country adheres exclusively to public or to private enterprise, that either system is in the abstract better than the other or that either can be regarded as perfect. Even the best system in the world could not with success be transplanted bodily from one country to another where history and circumstances were widely different. Yet if one man seeks help from

another, he can expect the most effective help only in directions where the competence of the adviser lies.

The United States has capital, both monetary capital and real productive equipment. This capital has been accumulated under a social process which emphasizes the production and sale of goods in a free market. Those who direct the investment of the capital or the making of loans are accustomed to the probability that competition will arise for a successful undertaking; they have been taught by experience that if an enterprise is not managed sufficiently well so that more tangible wealth is produced by it than is invested in it, the investment will be lost. The rewards and penalties of private enterprise have bred a habit of calculation in making investments and an attitude among the more enlightened business managers which lays stress on getting the most possible out of a given unit of effort or time. Nonproductive uses of wealth are regarded as economic waste. This attitude and training have conditioned the enterprises of government itself; government is called upon, as a rule, only for projects which for some reason a private business organization could not do so well. Even a great public undertaking like the TVA would have been impossible if it had not utilized experts trained under engineering principles and used many of the methods and devices which have been developed by industrial management.

### *Creating a Favorable Climate*

It is Turkey's province to decide the role of the state in the economy, the extent to which "five-year plans" should govern investment, the objectives of state enterprises and the type of management installed. If, however, Turkey wishes American loans to finance this development, she must expect those who have the function of deciding whether Americans shall make such investments to inquire into the uses to which the loans and equipment are to be put, and the operating efficiency of the enterprises in question. If Turkey wishes to



go further, and employ American technical experts or management in planning or operating state enterprises, she must expect these experts or managers to apply principles developed from American experience. Such experience concentrates on efficient production to satisfy market demands rather than on state management of the sort Turkey has developed.

If Turkey wishes to encourage private enterprise to take a larger part in her industrial development, those who govern her policy should remember that private enterprise can flourish only in a favorable environment. This does not mean that private business must be offered special privileges or guaranteed against loss. Quite the contrary; unless it is stimulated by competition with a fair and equal opportunity for all, and is subject to the risk of loss, business is likely to become inefficient, whether privately or publicly owned. Nor does it mean that government must remain severely out of production in any field into which it wishes to invite private enterprise. If a government enterprise can, without subsidy or other special privilege, remain in operation in competition with private undertakings, the latter have nothing more to fear from it than from one another.

Private enterprise, however, does need assurance that it will not be subject to arbitrary or capricious decisions by governmental authority, and that if it does make a reasonable profit under fair competitive conditions, this profit will not be confiscated by excessive taxation or otherwise. Governmental competitors with private enterprise must not rest on subsidies, tax exemptions, special privileges or discriminatory regulations.

American or other foreign private capital is not likely to enter business in Turkey under less favorable conditions than will permit the development of enterprise by Turks themselves. If Turkey wishes Americans to participate in this type of endeavor, it must create the conditions which Ameri-

cans have learned from their own experience make success possible.

Turkey, of course, has the opportunity to buy in the open market anything which Americans have for sale, provided Turkey can pay with the proceeds of her exports or ordinary business credits. The individual American manufacturer or merchant will not look closely into the benefit which Turks are likely to derive from the products, provided he is satisfied that he will be paid. In this respect, Turco-American trade can proceed as in the past, irrespective of any difference in the economic structure of the two countries. There is some question, however, how far such open markets are likely to extend in the near future. Shortages of goods and labor, allocations and priorities to accord with international relief and development programs, and consequent governmental controls of American exports, may limit the kinds and amounts of goods which may be freely bought. In any case, Turkey in her own interest ought to buy those things which will contribute most to her economic development.

### *The Nature of the Turkish Economy*

In bulk and importance, agriculture outweighs all the rest of the Turkish economy. It feeds the people, provides most of the materials for their clothing and produces the surplus from which needed imports may be bought and mechanical industry may be built up. Yet, for the most part, Turkish agriculture is primitive in technique and is at a low level of productivity per person employed or per acre. Even if modern implements and methods were at hand, the lack of good roads and transport and the scarcity of well-organized distributive channels would obstruct the flow to market of any additional output.

The drive for industrialization has resulted in the building of plants, mostly under state auspices and control, which are ambitious in conception and employ the most modern techniques, but do relatively little to supply the need of the

people for the simplest utensils, the means of transportation or the ordinary necessities of daily living.

Between the ox-drawn wooden stick used in tilling the fields for Turkey's food and the foreign-built blooming and plate mill at Karabük, the gap is too great. Unwatered and unfertilized cotton fields, the crops from which must be carried in bullock carts over the nearly roadless stretches of the Cilician plains, are a far cry from the Russian-built spinning and textile mills at Kayseri. Above ground at Zonguldak, the elaborate carpenter shops, garage buildings and recreation parks are in a different world from the wasteful and hazardous operations in the coal mines immediately beneath them. It is an anomaly that a nation which lacks simple and efficient irrigation systems, local foundries or the facilities for making modern agricultural implements should be sending young engineers abroad to study gas turbine design, supersonics and catalytic chemistry.

The gulf between agriculture practiced much as it was by the Hittites and the isolated examples of twentieth-century industrial technique must be filled if the Turkish people are to make real progress. Here is where foreign aid, if applicable to the job, could most effectively be utilized; here also is where the Turks themselves could, under favorable conditions, contribute the most.

### *What Must Fill the Gap*

The first step in filling this gap must be taken by the state itself, in the form of useful public works. This is a function performed by governments the world over, no matter what their economic system; in Turkey it has been neglected for the development of state industries. The building and maintenance of a nation-wide system of all-weather roads is a primary necessity of agriculture; better roads, together with a modern railway system, must precede any large development of industrial and mining production and commerce. Irrigation systems would greatly increase the production of

the farms now short of water for a large part of the year, though sources of water are abundant in many regions. The drainage of still other areas now lying waterlogged and useless would reclaim still more land for useful purposes.

Though the Turkish government must take the initiative in public works, this is a field in which American resources and skill would be of great assistance. Modern construction equipment may be imported; technicians and management experts having long experience in work of this kind can give advice.

The second step in building a sound economy is the creation of light industries of miscellaneous variety. Implements for producing and transporting crops, many of them simple things like plows, hand tools, wagons, are required. Some of them could be manufactured in Turkey, others could be assembled there. All must be maintained, and for this purpose local repair shops are needed. Processing industries to prepare agricultural and other natural products for the market offer a great opportunity. Canneries and drying plants for fruits, vegetables, meat and fish, utilizing abundant supplies of crops which Turkey is ideally suited to grow, and located in the heart of a half-starved Middle East, could compete successfully with any in the world. Still other light industries are needed to supply building materials and many kinds of consumer goods.

Such goods may theoretically be supplied by governmental production. Some of them could be imported in finished form, though processing industries and shops for repair and maintenance must necessarily be domestic. In general, however, such industries have developed in young and growing economies throughout the world, on the basis of private initiative and capital. Certainly here is the best opportunity for private enterprise, both domestic and foreign, provided it is to be encouraged in the Turkish economy.

*Will Turkey Permit Private Enterprise?*

Underlying all other questions concerning the future of Turkey's economic development and the part American aid might play in it is whether Turkish policy will accord an important place to the voluntary productive energies of its citizens. This is a question for Turkey to decide in her own interest; American officials have no wish to exert pressure on her to adopt their country's methods, and Americans seeking business profits or employment have plenty of opportunity in their native country and elsewhere in the world. It is merely a matter of fact that the most valuable contribution which Americans might make in helping the Turks help themselves is to share the resources and the techniques of American enterprise. This is precisely what America has to offer. It is the field in which Americans excel.

Turkish officials of all ranks have recently stated without reservation that the government recognizes a large role for private enterprise and favors its development. They refer to existing private business establishments such as those in textiles. They point to legal provisions which empower the state to convey its establishments to private owners, and to the power to make loans to private undertakings. They tell of urgent invitations to private investors to construct power plants, distribution systems and other projects.

This survey, however, brought to light no single case in which the expressed intention had borne fruit since the adoption of Etatism in 1935. It is true that the role of private enterprise was recognized during the first period of industrial development, but after the government officially declared that the state itself would take over the task of building up the country, the growth of private enterprise in industry came to an abrupt halt. Certain private undertakings previously established have survived, but they have been more than outweighed by the new state undertakings.

Not one of the five-year plans has made any significant recognition of a part to be played by private development. On

the contrary, they have explicitly pre-empted the field for what were regarded as the most urgently needed industries and mining developments. They have enforced market controls. State enterprises have been favored with priorities in limited supplies of material, discriminatory tax treatment and subsidies. In the Ministry of National Economy, which is charged with economic development of the country, not a single man has ever been given the duty of studying the problems of private enterprise or promoting it.

The recent declarations may be sincerely prompted by the desire to make a case for foreign assistance, but the observer must judge by Turkey's performance rather than by promises. In every other instance, whatever the Turks have intended to accomplish since the Revolution has been made known by vigorous efforts to gain the announced end.

### *Legal Difficulties of Private Enterprise*

Aside from the obstacles interposed by taxes, there are many legal entanglements which discourage business activity and private investment. They reflect the unhappy memories of the capitulations, the influence of Russians and Germans in previous years and a host of impulses, prejudices, exigencies, most of which have lost any pertinence they may once have had to Turkish national purposes. So many laws, decrees and regulations are involved that it would be impossible even to discover all the specific reforms needed in advance of the experience of a considerable body of private industry such as does not now exist.

A possible way out of this morass would be the negotiation of special agreements, having the force of law, between the government and each major private undertaking which the state desires to encourage. Not many such agreements would be required to provide the experience necessary for discovering what changes should be made in the general laws themselves if private enterprise is to be allowed to grow.

The fault with most existing laws, especially those relating

to domestic industry, is not that they explicitly deny essential rights or compel injurious procedures. The main fault is that private enterprise is not adequately safeguarded against unpredictable decrees, the exercise of executive discretion, the promulgation of administrative regulations by the state or its business subsidiaries, such as Sümer Bank or Eti Bank. Much official Turkish thinking assumes that because general laws do not positively deny rights to private enterprise nothing needs to be done. Turkish officials do not understand that capital and personal endeavor will not be risked without assurance that business need not fear capricious or arbitrary interference in its legitimate activities. Private enterprise can flourish under orderly and calculable restrictions such as are embodied in general laws governing taxation, the obligations of citizens and the like. But if the businessman is faced with arbitrary official action which may spring from the caprice, ignorance or design of individual governmental employees or subordinate state agencies, he will either refrain from production altogether or protect himself by private and illicit means, such as bribery. Both courses have commonly been taken in Turkey, to its great disadvantage.

Guarantees from the government to private enterprises against adverse or arbitrary action would bear a superficial resemblance to the capitulations, and hence might at first be unpopular in Turkey. There would be a difference, however, in that the capitulations protected only foreigners, and protected them against interference with privileges that were in fact harmful to the Turkish people. It must be taken for granted that any new guarantees would be made first to domestic interests, and that both domestic and foreign concerns which were so protected would be subject to the jurisdiction of the national government acting in the general welfare. It could be persuasively argued that it is now the turn of the Turk himself to be offered capitulations by his own government.

*Business Organizations and the Law*

Private partnerships may exist in Turkey without any legal formality. The law itself defines four types of commercial business units—partnerships, *komandit* (limited liability) associations, limited companies and corporations. There are also nonprofit cooperatives for consumers, producers and credit users. Existing tax laws distinguish sharply among these forms of organizations, with the result that there has been a good deal of unnecessary dissimulation about the character of private enterprises.

There are three kinds of courts in Turkey. The judicial courts pass only on questions of law. In addition, there are commercial courts and criminal courts. Juries are never used in Turkey for either commercial or criminal cases. All judges are appointed by the Minister of Justice and can be removed only by him. Local courts for minor offenses are presided over by justices of the peace.

Appeals may be taken to the High Court of Appeals. This court consists of the Chief Justice and the General Prosecutor, who preside over it, and two bureau heads of the Department of Justice—the divisions of Commerce and of Criminal Law and Jurisprudence. Decisions of the High Court of Appeals are final.

Under the Constitution, a Council of State adjudicates cases against the state itself. This body also gives advisory opinions on proposed laws and on proposed state contracts for concessions. There is also a Supreme Court, which exists for bringing before the bar of justice members of the government, of the Council of State, of the Court of Appeals, or the Chief Prosecutor. This court functions when called upon to do so by the National Assembly.

Turkish lawyers have in many cases had long study and practice abroad, and the Turkish law faculties themselves include some distinguished jurists. The bar maintains high technical and ethical standards.

Turkish law, however, exhibits a conspicuous lack of



homogeneity, and will have to be developed a good deal before private business enterprises can know with any approach to certainty what they can do or not do with impunity. The law is not drawn from Turkish tradition, but is based on a number of different Western models. The Turkish economy, as it has developed under the Republic, is dissimilar from that which exists in most of the countries which were used as legal models and in which prominent Turkish lawyers received their training. Clearly a major task confronts the Turkish bar in adapting the legal tradition to the requirements of a new and growing economic system, which itself is not an outgrowth of tradition and exhibits many inconsistencies.

### *Discrimination Against Foreign Enterprises*

In addition to the hazards which restrict domestic private enterprise, foreign undertakings are faced by obstacles which have in recent years made it almost impossible for them to operate in Turkey. Even tourist travel is now extremely difficult.

A foreign concern wishing to do business in Turkey would probably find it necessary to bring with it at least key members of the staff. Yet most trades and occupations are reserved by law to Turkish citizens. Foreigners are not allowed to work in the steel, building or woodworking industries, or for public utilities, transportation or communication concerns. They cannot make clothing or shoes, or be brokers, chemists, photographers, veterinarians, printers, airplane pilots or mechanics. They cannot drive motor vehicles or work for organizations belonging to the state or municipalities. Many other pursuits are closed to foreigners; exceptions may be made only by special decree of the Council of Ministers.

A foreign company cannot establish a branch in Turkey without elaborate formalities of registration under the Ministry of Commerce. The requirements are not in themselves

onerous or unreasonable, but a good deal of paper work is involved.

More serious is the control of foreign exchange. Foreign concerns wishing to operate in Turkey must bring the necessary capital and other funds with them either in the form of free exchange or of gold (by special permission). Any receipts in Turkey from earnings, sale of property, liquid assets, etc., are frozen. They must be deposited in the Central Bank within one month of their receipt. The Ministry of Finance determines how these assets may be used, even within Turkey. The frozen assets may be taken out of Turkey from time to time by special permission of the Ministry of Finance, but then only by the export of certain products to be designated jointly by the Ministries of Commerce and Finance. These restrictions have recently been modified to the extent that foreign enterprises thought to benefit the country or tending to increase Turkish exports can *apply* for a guarantee from the Ministry of Finance that they will be allowed freely to transfer abroad their income or assets.

For entirely understandable security reasons, foreigners traveling in Turkey are severely restricted in the large areas of the country classified as military zones. Even in non-military zones there are enough required registrations, permits and reportings at police stations to wear down the resistance of any but the most determined traveler. The regulations may be modified in the case of bona fide business representatives, but ordinary tourist trade is out of the question under present circumstances. Foreign travelers must register, on entrance into the country, all foreign exchange and valuable articles they carry, and may take out what they brought in.

It is unlikely that any foreign capital would be invested in Turkey or that any foreign enterprise would establish a branch there without first making a specific agreement with the government exempting it from many of these laws and

regulations. (For a detailed discussion of Turkish laws affecting foreigners, see Appendix 2.)

### *Obstacles to a Change*

It is possible that there is now a serious desire to modify Etatism in order to open a real opportunity for private enterprise. If so, several attitudes which hitherto have influenced Turkish opinion on the subject will have to be revised.

First of all is the memory of the capitulations, which gave foreign vested interests a privileged position under the Ottoman Empire. Turkey is now sufficiently mature to safeguard herself against a repetition of unfair exploitation in any business arrangements which may be made with foreigners. Among responsible officials there can be little genuine fear of the repetition of any such experience.

The second is the expressed belief that before the adoption of Etatism, private enterprise was tried, and that it failed for reasons specially applicable to Turkey at the time. Capital, experience and initiative, it is said, were lacking. There is some substance to this contention; private enterprise did not keep pace with the astonishing tempo of other reforms by Atatürk, though it did gain a foothold. Yet on the other side, it must be recognized that fourteen years of state development of industry have not produced enough new wealth to compensate for the large costs incurred, with certain notable exceptions. The economic well-being of the people as a whole has scarcely been improved. When the success of the policy is measured by the benefits which might have been realized if this expenditure of energy and skill had been allotted to better purposes, the loss to the nation is staggering.

The Turkish people are not stupid, and the negative results of state enterprise are as apparent to the more observant as are the benefits of the Revolution; conversations during the course of this survey disclosed awareness of the situation by many. If reasonably free from political pressure, large

numbers of citizens will support a return to the policy of the period before 1935.

The original adoption of the existing policy coincided with advice from Soviet Russia, and Germany was also influential. Both sources of influence have been removed from Turkish councils. Whatever tiny groups there are within the country who support a Soviet type of collectivism on principle have no foreign connections, so far as is officially known. The main support for Etatism arose originally, and still flows, not from foreign infiltration, and not even from native conviction, but rather from a ruling class of government bureaucrats who are indifferent to theory but have become so dependent on the existing system that they will oppose its retrenchment.

### *Political Reluctance to Change*

The one-party system, a natural expedient when the Republic was founded, was not intended by Atatürk to be permanent. On two occasions, he tentatively formed a second party, but the time was not ripe for it. The tenets of the Turkish variety of national socialism were made a part of the platform of the People's Republican Party in 1935 and were written into the Constitution by amendment in 1937. The nation has remained a democratic republic in name only. The President of the Republic has been the permanent head of the party. The Council of the party has had exclusive control over the economic resources and programs of the state, the sole power to nominate candidates, the right to supervise elections, including counting of the ballots. No bills not approved by it could be presented to the National Assembly, and it could name all appointive officers. Inevitably, a tremendous and almost unassailable bureaucracy was the outcome of this system.

If this bureaucracy were to sacrifice its control over the means of production, it would lose one of the strongest instruments of power. Competent men in industrial posts can

be removed if they do not serve the political interests of the machine. Incompetent men are not held to efficient performance; no economic criteria for judging results have been established for management.

A factory may be located in a particular district for essentially political reasons. The director of the establishment must then make the best of the transportation, raw materials, power and labor that may be available. If he finds himself with more men on the payroll than he requires, or staff members recommended by the local party leader, he is unable to remove them.

During the course of this survey, the staff observed instance after instance where costly installations were made in connection with some major project without the slightest economic justification. Some examples in the field of "welfare" were a large gymnasium (unequipped and unused), elaborate formal gardens, a yacht club used only by the management staff, libraries and recreation buildings containing neither books nor recreation facilities. The most charitable interpretation that can be placed upon projects of this kind is that they reveal economic irresponsibility—almost a complete lack of appreciation that there must be some relationship between the cost of producing goods and the value of those goods to consumers.

The state enterprises contain many well-trained, competent and conscientious executives and experts. It is obvious, however, that a political organization of this kind will not be eager to encourage competition with its activities and power by independent private citizens.

### *Political Opposition*

For some years an opposition to this governmental machine has been forming, now organized as the Democratic Party. It is in a position to offer a real contest in elections. Naturally, it had to overcome tremendous obstacles, but at least

the suppression practiced by the party in power did not go to extreme lengths.

In 1946 the life tenure of the President as head of the People's Republican Party was changed to four years, the same term as that constitutionally held by the President of the Republic. (This would facilitate a change of Presidents within the party.) President İnönü had seen that a large and growing body of loyal Turks who had fought under Atatürk to found the Republic and had served under the state in its early years were now gathering in grim determination to regain a voice in the government. He had also seen that while the Turks had demonstrated great capacities, much of their economic effort had been misdirected. On July 11, 1947 the President announced that, as head of the state, his attitude toward parties was impartial, and that all would receive equal treatment in registering the popular mandate.

The decision of President İnönü is subject to the ratification of the Congress of his party and, if it is to be effective, must be supported by the National Assembly. Assuming that the contest between the parties is fairly conducted, the popular will then remains to be tested in the general elections. It is possible that even if the Democrats lose, their rapid gains in strength in recent years will influence the policy of the party in power.

In general, the issue confronting Turkey transcends immediate political differences: it is one of direction rather than degree, a choice between moving toward democracy on the one hand and bureaucratic state collectivism on the other, between regeneration and aggrandizement of the state. Upon the tendency adopted depends the future of Turkey for many years to come.

Incidental to the major issue is the question of the role of private endeavor in the Turkish economy. This is not an exclusive choice between state enterprise and private enterprise. Both parties endorse initiative by the state, both declare that private enterprise should be encouraged where it can

perform a service. In wording, there is small difference between the party platforms on this point. There is no doubt that in any case the field in which only the state can act is a large one. What has to be decided is whether in actual practice the way is to be cleared for nongovernmental efforts to share in developing the nation's wealth.

No matter how the voting may result, it seems probable that the period of one-party dictatorship has come to an end. The tide is running against the extremists of Etatism.

### *Possible Turkish Capital and Its Use*

In Turkey private capital traditionally has not been entrusted to anyone other than its owner or his intimates. The practice of buying shares or other securities in business companies is not customary. Concentration of considerable amounts of formerly dispersed capital in the hands of skilled management, which has made possible the development of the modern corporation elsewhere, has never become generally accepted in Turkey. Yet some method of capital pooling is essential for the building up of a modern economy.

During the first period of industrialization, when private enterprise enjoyed government favor, the textile mills and cement plants which sprang up were owned by family groups, who had substantial accumulations. If the government had not changed its policy, this practice might have continued and the habit of corporate investment might have spread to wider circles.

Since the inauguration of Etatism, virtually all capital put to productive use in industry has been channeled through the government, either by taxation or by the sale of bonds. Such capital as was concentrated in private hands has been used increasingly to buy real estate, particularly in the cities, and to erect large office or apartment buildings. In this process many family or individual accumulations of money were exchanged for a form of wealth which is not so

liquid and thus were made unavailable for new productive developments.

Since there is no established channel by which savings can flow into industrial investment (except through the hands of state enterprise), Turkey could not be benefited by the mere introduction of additional private capital from the outside. Such capital could not find a use.

Before there can be anything approaching a capital market in Turkey, a way must be found to popularize private share or bond holdings by convincing people that they are safe. The governmental policy which has driven private capital either into real estate speculation or into hiding will have to be reversed if this condition is to be met.

### *Drawing Out the Hoardings*

Though there can be no certainty how much Turkish capital would be forthcoming if there were any opportunity for safe and profitable investment in industry, the amount is likely to be considerable. Hundreds of millions have been attracted to real estate and buildings for rental income. Contrary to the traditions of centuries, 332 million liras (\$117 million after the 1946 devaluation) had been invested in government bonds by mid-1947, according to a statement by the Minister of Finance to a member of this survey group. It was said that at least another hundred million liras could be sold without delay. Private savings deposits in the relatively few and not widely used banks totaled 300 million liras (\$106 million) at the end of 1946. A Turkish private banker, formerly a Cabinet Minister, hazarded the opinion that hoarded currency might amount to another 200 million liras (\$71 million). This opinion was based on the fact that when the appearance of a forged 100 lira note made it necessary to call in all notes of that denomination, these notes "appeared from nowhere" to the value of 100 million liras. The same banker estimated that 200 million liras of Turkish capital had escaped the exchange control and fled abroad. A United



States government official closely associated with the monetary controls placed the figure even higher—at \$100 million, or 283 million liras at the current rate of exchange.

It is impossible to arrive at any total by adding these figures, since there is duplication involved. Even if there were an opportunity to invest in business, some money would still be hoarded, some would go into real estate or government bonds. But there is little doubt that any present apparent scarcity of capital for the development of private industry does not arise from lack of accumulations but from reluctance to use them for this purpose.

Capital is as available for the needs of Turkish industry as the waters of the Seyhan River are to the farmers of the Cilician plains, and is subject to as simple laws of flow. Until the elaborate and costly system of headworks and canals which has stood idle since 1940 is connected at a thousand points with the land on which the crops must grow, the water will not run there and productivity will not increase. When ditches are opened to the farmland, no pumping will be required, no prayers or incantations, no missions to Washington. Private capital just as surely flows to productive opportunities once the channels are open. The greater the security and the possibility of production, the greater the flow.

### *Equipment and Purchasing*

Mechanical equipment of many important kinds is lacking; much more would be required for public works and for sound industrial development, whether under private or public auspices. The scarcity is attributed partly to the difficulty of getting delivery from industrial countries, partly to shortage of exchange. Both obstacles exist, yet the same lack of equipment existed before the war, when deliveries were prompt and ample credit was available. Agricultural implements, irrigation pumps and engines, road machinery, electric generators and equipment, railway cars, machine tools, and machinery for food preservation, cement plants, farm tool

factories, the making of steel drums and paint, could have been had in abundance, yet the present state factories were erected instead.

If such needed equipment is to be procured in the future, not only must policy be changed, but provision must be made for the organization of competent and experienced purchasing agencies, which now are lacking. The job of procuring goods from abroad, particularly technical equipment, is a highly specialized one. It involves knowledge of types, characteristics and qualities, their availability from various sources, acceptable substitutes, the range of prices, terms and conditions, the complexities of payment and shipping arrangements, the formalities of governmental control in the country of origin.

The distribution of goods in the modern market is carried on under constantly changing and contesting interests. To understand it requires long experience and a knowledge of "the trade." Merely to place an order with a local representative of a foreign manufacturer during a period of acute shortage is likely to achieve nothing more than a place at the bottom of the waiting list for long-deferred delivery at the maximum price.

In these circumstances, it is unfortunately natural that opportunities arise for agents of the seller to collect large fees from the eager buyer for doing nothing. There were Americans who, retiring from war service, used their brief association with the world of commerce to act as middlemen, though the only practical result of their fees and commissions was to tie up many millions of dollars in advance payment (on letters of credit) for goods which could not be delivered. This abuse must, however, be sharply distinguished from the valuable services which are performed by competent and experienced American agencies skilled in international trade.

A common practice of buying countries has been to send purchasing missions abroad. Such missions may do much good, yet a trip to America does not make purchasing experts

out of bakers, engineers or government officials. The technical difficulties remain to be handled. The task is big enough to warrant concentrated attention; it will be difficult enough to establish even one adequately staffed expert agency within the government, not to speak of an agency for each institution or division. Incidentally, it would be realistic *not* to extend to such agencies the immunity from surveillance by the Court of Audits enjoyed by other state enterprises.

### *Experience in Management*

Money is available for investment, under conditions which will attract it from hiding; equipment and materials may be bought. The most critical lack is skilled management. This is not a matter of mere technical education; it demands a type of experience which cannot easily be gained in Turkish state industries and there are too few private establishments to nurture it in adequate quantity and quality.

Good management implies fulfilling the objective of the enterprise, despite obstacles or risks, by the most effective utilization of labor, capital, materials, tools and energy. It requires leadership, resourcefulness, ability to appraise risks, to make critical comparisons, to exercise good judgment and to arrive promptly at responsible decisions. These are the better products of long experience in private enterprise, where the penalty of failure is bankruptcy.

A good manager, as the term is understood in America, could be placed in charge of a Turkish enterprise and make savings in money and labor, through avoidance of waste in material, full use of capacity, and the development of by-products, which would set new marks for Turkish industries. He could bring the performance of any concern up to the limits imposed by the Turks themselves; more than this he could not do, but there would be ample opportunity for improvement before these limits were reached.

There are several ways of obtaining competent management. One would be a joint arrangement between Turkish

and American interests, in which American management would go in with the American capital. This would probably be a stipulation accompanying any considerable American private investment in Turkey for some time to come, even though the American participation were a minority interest. There would be exceptions in which demonstrated capacity of Turkish executives made this stipulation unnecessary.

On the other hand, a wholly owned Turkish establishment could employ an American staff experienced in the types of operation in question. Another method, frequently employed in the United States when security holders wish assurance of expert management, is to turn the direction of the enterprise over to a management company which has access to men with the necessary qualifications. Small companies or those which need reorganization often make similar arrangements with large, well-established concerns in the same field.

Finally, management can be obtained by selecting good men among the Turks themselves, and giving them training under American managing staffs. Turkey has been very progressive in sending young men abroad to obtain technical education, but when the graduate engineers return home they usually have to spend a number of years working for the state institution which paid for their education, and it is only by chance that they are placed where their training can be of value. In any case, an engineering degree is not sufficient qualification for a good manager. Actually the unrealistic and arbitrary criteria for performance in most state industries make engineers nearly useless. Conversations with more than fifty young engineers with degrees from recognized colleges, employed in about ten state establishments, revealed widespread dissatisfaction. A typical comment was: "What's the use of an engineer working for a politician? If the answer matters, he tells you what it is. If it doesn't matter, he doesn't want to know it."

In the long run, the best solution for Turkey's problems is to offer her own young men experience in modern manage-

ment under skilled American staffs, and then to permit them to exercise their ability not only in public employment but also in directing the important role which private undertakings may play in developing the abundant resources of their native country.

Given competent managers, all other deficiencies would in time be disclosed and remedied, for this is the function of management.

## *Chapter 9*

### RECOMMENDATIONS

#### AMERICAN AID TO TURKEY

THE FIRST PREREQUISITE for practical American help in the development of the Turkish economy is a reassessment of the economic objectives and the function of government in that development. This reassessment should be guided by the basic democratic principle that rights pertain to the people of the country, not to the government as such, and that whatever responsibility and authority the government may exercise are those conferred on it by the people.

The government has the opportunity to establish the conditions favorable to economic growth, by an appropriate system of laws and taxes, besides economic undertakings which may be helpful, including such things as the creation of credit facilities and the construction and operation of physical works. There is no sphere of production, service or regulation which the government may not legitimately enter, provided the public interest is better served by its action than it would be by the use of individual resources. It is not necessary to draw a line between the field of the state and that of private endeavor. What is essential is that individuals or private establishments should not fear the impairment of their rights by arbitrary, capricious or discriminatory acts on the part of agents of the state.

The state should reduce the obstacles to economic achievement far enough so that the individual citizens can cope with them. As the capacity of the people to provide their own economic needs in a particular field grows, the state might well withdraw and apply its specialized faculties to similar

preparatory work in other fields. The state will, of course, always perform functions which cannot be undertaken, or cannot be so well carried out, by private initiative. Among these are education, public health, the postal system, police and fire protection, public works, regulation of utilities and many other activities.

At the present moment, though Turkey has great possibilities for economic development, it is not a field ready for private initiative, either domestic or foreign. It is impossible to recommend specific localities or industries for American investment, or to draw up detailed schedules of needed imports—so many electric generators, so many plows, so many tractors.

#### *Starting on a Small Scale*

A list of plants needed for light and heavy industries would include almost everything a growing country requires, excepting only those articles that might better be imported. There is relatively little manufacture now. It is of less consequence to guess when the demand for cement will grow from 300,000 tons a years to a million than to bring about the establishment of one plant making high-grade cement at low cost, and selling it at a profit. We know only that Turkey needs far more cement than she is getting. How much more depends on many incalculable factors.

If we should assume that Turkey could use as much farm machinery per man or per acre as the United States, then the opportunity for manufacturing it could be calculated. Turkey has next to none at present. But many pages of tables on this subject would be as insubstantial as bubbles of champagne. Turkish farmers need first of all at least one factory making plows, pitchforks or wagons. The rest will develop in time, as roads, irrigation canals and food-processing plants are built.

A modern fifty-ton jobbing iron foundry in Turkey could operate night and day on firm contract work for a year ahead,

on the basis of demand which already exists. There is no foundry there which is worthy of the name; Turkey is not yet living in the Iron Age. How many tons of cast iron could be produced and sold in the next five years is anybody's guess. Guesses that are worth recording could be made only by those who had set up business and had begun to fabricate and distribute the products.

Enterprises of this sort could start once the government had met the prerequisites by removing obstructions imposed by laws and taxes and had ceased to use whatever economic surplus exists for an overambitious program of state-directed "five-year plans."

### *Management and Know-How*

Once the government had cleared the way, the primary requirement of Turkey would be, not capital, but skilled management to operate the essential plants. Capital without management is sterile; without know-how capital is as useless as steam without an engine. The availability of capital is a meaningless term taken by itself; capital must be available to management and technical skill.

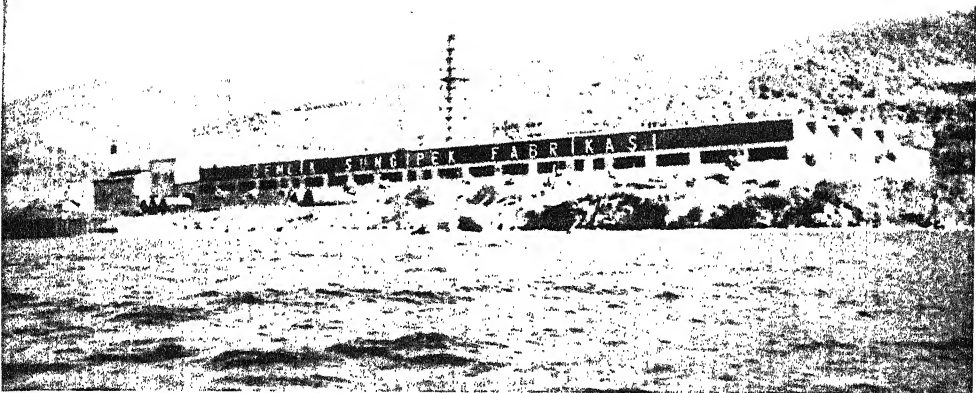
The job of management begins long before a plant is completed and ready to be taken over from its builders after the first test run. Most industrial enterprises which have failed were doomed before they produced a single article. This is true of many Turkish establishments. Preparation for success by an experienced managing staff means operating the project on paper before anything else is done. In their minds, the managers and technical men find the raw material and move it to the mill, obtain the men and train them, manufacture and distribute the product, collect the revenue and pay the bills. In this way, future mistakes of design or routine are avoided. When all foreseeable needs are envisaged and ways are devised to meet them, the risk of failure is reduced to the risk of the unknowable. Experienced men, facing only this risk, can usually survive even adverse developments.



One of the first concerns of good management is to set up an organization appropriate to the enterprise and to allocate within it responsibilities and authority. The organization must be shaped to take account of men, equipment and services, and must outline a form or mode of procedure of the sort adapted to the particular undertaking. Here is where know-how first manifests itself. It is through a good organization that management achieves its results. Therefore management must be free to set up its own mode of procedure, to make its own decisions and to direct the use of the available facilities. It can only be hampered by arbitrary or irresponsible interference with its internal operations. Any controls or regulations which are necessary in the public interest should be applied externally as limiting conditions. Management is trained to deal with surrounding circumstances and to surmount obstacles, but in order to do so it must be free from politics or caprice within the scope of its own function. The manager should be expected to apply his own effort, skill and resourcefulness and to stake his personal interests on the outcome. In the simplest case, an individual enterpriser may be both manager and organization. If a larger and more complicated undertaking induces the owner to put his capital in the hands of a company manager, the same principles apply.

### *Mutual Obligations in Foreign Investment*

If American capital and management in combination are invited to operate in Turkey, they should be on their good behavior. To make headway with many of Turkey's problems will require the concentration of capital and skill that the modern corporation provides. But concentrations that have the power to overcome great obstacles also have enough power to constitute a hazard to the public. The presence in a single institution of abundant capital and men with high capacity, all subject to the direction of a single management, may outweigh safeguards set up for the public good.



ARTIFICIAL SILK MILL at Gemlik brings modern methods of textile weaving to a land whose handicrafts have been noted for centuries.



In America, the gradual development of giant corporations has been paralleled by the growth of public controls and a social discipline which limits their power for harm. The corporations in turn have developed capacity for offense and defense, against both competition and public controls. The great pressures which have been developed to accomplish tremendous feats in production and distribution need firm walls to hold them to their proper work. In America the government and society in general are familiar enough with the possible abuses of corporate power so that as a rule they can hold the steam of great private enterprise within the walls of the cylinder where all it can move is the piston. Turkey, without similar experience, might conceivably provide a field for uneconomic and antisocial exploitation.

Among the aids which Turkey may receive, American enterprise has much to offer, but if it is to be demonstrated there, it should show the best it can do, not the worst. Competition should not mean the extermination of the weak, but rather a fair chance for all, fair prices and the absence of abuses. No American enterprise should exercise a monopoly, either by itself or in combination with Turkish interests. The application of capital must carry with it, not restrictionist practices or industrial warfare, but the efficient development of resources and the provision of opportunity for smaller enterprises, down even to the lowest level where the laborer can become a capitalist through wise use of savings from his wages. Wages, hours, conditions of work, housing, food and care of health must be such as to call forth the best efforts of the men.

Turkish authorities have it within their power to establish conditions which will attract foreign investors who have a sense of responsibility and a feeling for the public interest, rather than mere speculators. Private enterprise cannot make its contribution without earning enough to offer a fair return to the investor and to pay for good management. But beyond this, the profit expected by those considering a busi-

ness venture depends on the amount of risk which will probably be incurred. If the risk of loss is great there must be a chance of correspondingly large profit or there will be no inducement to undertake the job. Business opportunities which involve a high risk are attractive only to an adventurous type of "venture capital" and a kind of enterprise which is not suited to present Turkish requirements. In order to attract sound and conservative investors, the risk must be kept reasonably low. If this is done, the Turkish people will not have to pay to foreign investors an excessively high rate of profit as a compensation for extravagant risk.

### *Eliminating Political Risks*

In Turkey the risks which must be incurred by new business are only to a small degree physical or commercial; they are almost entirely political. Raw materials are at hand, direct manufacturing costs need not be high, potential markets are almost untapped and no field suffers from "excess capacity." The risks consist of foreign exchange control, export and import regulations, price control, taxation and the like. Unless the prospective investor can satisfy himself in advance that these factors permit the earning of a reasonable profit, he will either turn his attention elsewhere or expect a very high return.

Faced with Turkish laws and customs which leave power to make arbitrary decisions with government officials, the conservative and conscientious investor will turn elsewhere. The unscrupulous man or company will resort to the age-old protection against arbitrary power—bribery. This is an ugly word, but to write so bluntly is no aspersion on the character of the Turkish people; in every country and in every period, the possession of arbitrary power by officials has gone hand in hand with corruption.

The best protection for both the Turkish people and the responsible foreign investor would be so far as possible to establish the conditions affecting foreign private investment

by general laws passed by the National Assembly. At the beginning it will be desirable to make special agreements with particular enterprises before an adequate code can be passed, but in such cases ministerial fiat, not necessarily binding on future Ministers or the government itself, is not enough. The making of such agreements should be authorized by the National Assembly, and the detailed decisions necessarily left to executive discretion should be open to review by the courts, as a protection against arbitrary action.

One part of the project analysis made in advance by experienced managements will be to determine what conditions are essential for the success of the particular enterprise. After the first few enterprises typical of various fields are set up, a broader basis for general legislation will be laid.

### *General Principles*

The principles which should govern American aid to Turkey can be recapitulated as follows:

1. Economic development for the benefit of the Turkish people requires recognition of the right of the individual to both economic and political freedom, subject to government controls in the public interest and supplemented by state economic activities where necessary. This implies that:
  - a. Government funds should not be used in commercial undertakings for which private capital is available with equal or better effect.
  - b. Private enterprise must be conducted with proper regard to the public interest.
2. American resources (capital, skill or material) should not be diverted from other productive fields for use under conditions which inhibit productivity in Turkey. This implies that:
  - a. American resources should not be used in Turkey, even though conditions have been made favorable for their effective use in a particular case, if at the

same time Turkish resources which could accomplish the same purpose continue to be used unproductively elsewhere within that country.

- b. American capital (or capital goods) for use in Turkey must be administered by men possessing the technical skill or experience which is essential to its effective utilization.
3. Assurances of orderly political, social and economic intentions, and of orderly administrative procedure, must be embodied in the law, and there must be full access to just courts in the event of disputes. This implies that:
  - a. Special agreements of importance, when necessary for the protection of private interests pending reforms in existing laws, must be given the authority of special laws, and not rest solely on the authority of a particular official whose fiat is subject to arbitrary nullification.

#### GOVERNMENTAL NEED FOR SKILLED ADVISERS

Before the recent war, Turkey made extensive use of foreign advisers, principally from Germany, Russia and Great Britain. Since 1940 the government has had to rely almost exclusively on Turkish specialists. While they have excellent professional education, most of these technicians have not had the requisite experience to guide the economic development of the country. Until this lack is supplied, the need for foreign advisers will continue. Since Turkey must in the next few years rely principally on the United States for resources previously supplied from Europe, there will be a need for American experts, who are familiar with American standards and practices. These are very different from those of European countries.

Examples of this need in various fields follow.

*General Consultants*

Engineers with broad economic and industrial background are needed to study the over-all needs and resources of the nation, its present state of economic development and the priority which should be given to various fields of work, based on reliable estimates of cost and of results. Engineers with qualifications necessary for this type of service are available from American consulting firms. Generally speaking, they are not likely to be found in the permanent U. S. government service, though many of them have been called in by the government from time to time.

*Experts in Public Works*

Engineers and other experts with appropriate specialized experience are needed to work with the Ministry of Public Works, the Ministry of Transportation and Communications, the Ministry of National Economy and other agencies of government, to guide detailed studies of particular projects, and to assist in organizing and executing such projects. This refers particularly to road building and maintenance; railway construction and operation; irrigation and drainage projects; municipal water-supply and sanitation systems; telephone, telegraph and radio systems; harbor and dock developments; and other undertakings generally classed as public works. In many instances, the technical adviser would help to engage a qualified contracting firm to perform the detailed work, and would protect the government against poor construction or excessive charges.

Engineers qualified in most departments of public works could be found in the U. S. government service. In the past, U. S. government experts have been loaned for reasonable periods to another government. While men with high qualifications for investigation and design might be secured from government sources, it is probable that similarly qualified engineers drawn from private practice would, in most cases, be more experienced in dealing with contractors or in direct



supervision of construction forces. They are likely also to be better qualified for creating and training an efficient administrative and working organization than are technical experts whose chief experience has been in government service.

### *Technical Specialists*

Geologists, mineralogists, chemists, architects, and other experienced specialists are all available in the United States, in some cases from the government and in all cases from private professional ranks, for short-term or long-term employment. While the U. S. government has always shown a willingness to assist in the selection of experts for other governments, the history of such selections does not warrant full confidence in this method. The most satisfactory method for Turkey, in most cases, would be to make use of a well-qualified private consultant who could make the selection of specialists on the basis of demonstrated ability. As the acquaintance of Turkish officials and technologists with American specialists grows, the selection of consultants will become simpler.

Formation of Turkish professional societies and interchange of ideas and publications with corresponding American organizations would increase the familiarity of Turkish technologists with all fields of American technical advancement. Closer collaboration between Turkish and American technical colleges would offer a similar gain. In view of the probable transition in Turkey from European technical tradition and practices to American, the lack of effective collaboration between the professional societies and colleges of the two countries ought to be remedied as soon as possible.

### *Agricultural Experts*

Agricultural and livestock experts with long experience in American practices are needed in Turkey. Many of the Turkish experts are excellently trained in theory, but to the

man without experience—regardless of his theoretical training—each departure from established habit is an experiment, and each experiment represents not only a cost of time and money, but a risk of losing the confidence of those who expect prompt results. The experienced expert, on the other hand, can go directly from existing local methods to an already proved practice which requires only minor adaptations. Much of the “experimentation” now to be observed in Turkey is far behind common farm practices in other parts of the world.

The U. S. government could furnish to Turkey, as it has to many other countries, scientifically trained agricultural experts with long experience in actual farming, fruit growing and livestock production, and in the extension services Turkish farmers need so badly. Equally well trained men are available also, in the United States, in private agricultural occupations.

### *Public Health, Education, Economics*

Technical experts are needed in public health, to introduce, without delay, not only the improvements made in America but also those which have come from the intensive experience gained in six years of war. They are needed in education, especially to gain the benefits of American experience in vocational training, and to assist in adapting the technical programs in the higher schools to prepare students for work with Americans.

Expert advisers are needed also in certain divisions of government which deal with financial and commercial matters important in a prospective Turco-American relationship. It is for Turkey to say what her practices will be, but before she decides on the form and details of an income tax, for example, it would be well to know what kind of tax will seem effectual and just to those whose capital she hopes to attract. This is equally true of banking practices, laws governing the formation and conduct of business enterprises and

the regulation of foreign exchange. In all such matters, it is important that the Turkish government be at least as well advised concerning American ways as she used to be concerning Russian and German. At present there is a decided lack of this understanding.

### *Methods of Obtaining Advisers*

To provide the Turkish government with experienced technical advisers, two ways are open, both typical of American practice. Engineering firms and private consultants in various technical fields can offer their services there as they offer them here. Or—and better to begin with—the long-established professional societies, the most distinguished of which are already prepared for just such coordinated effort through the Engineers Joint Council, could open channels between so vital a demand and so rich a supply.

In the nontechnical but specialized fields of business and finance, a similar course may be adopted. Nothing is more typical of American enterprise than the great national associations of men in various fields of business—manufacturers, bankers, accountants, purchasing agents, insurance men and shippers. A delegation composed of selected representatives of such organizations, conferring with responsible Turks in Ankara and other important commercial centers, would open channels first for advisory services and later for broader collaboration.

It is not a "trade mission" that is suggested here. The need lies deeper than that. Much of what we have to contribute toward what Turkey urgently needs is in the heads of the Americans who made the same contribution to America and are making it every day. The object is not to spread American influence but to offer the Turks whatever they are capable of making their own. It would not be in accord with the American spirit to try to transplant a wholly alien system to Turkish soil, as the Russians and the Germans did during the thirties. No part of the Turkish economy is emptier both of native

qualities and of real value than that which now bulges with Soviet and German ideas. It may be that the ideas which have flourished in America are more adaptable to Turkish aspirations.

### GOVERNMENTAL NEED FOR FOREIGN CREDITS

Does the Turkish government need more foreign credits than have already been obtained? A brief summary of its problem will indicate the answer. The needs considered in this section are exclusive of those which may exist in connection with state economic enterprises of the type conducted by Sümer Bank and Eti Bank. The military program may also be excluded. It seems reasonable to suppose that no additional dollar requirements will arise from military needs during the next year or two, or, if they do, that they will be met by a special credit for that purpose.

### *Public Works*

Public works requirements are very great. Turkey's most critical need, so far as public works expenditures are concerned, is for transportation facilities. Out of the recent \$100 million military grant, \$5 million was allocated to road-building equipment from the United States, most if not all of which has now been delivered. Before such machinery can be used to full advantage, several other things must be done. Operators must be trained to run it and mechanics to maintain it, with shops equipped for the purpose; engineering studies must be made to determine which roads warrant first attention and what type of construction and maintenance is justified. And over all this, to make it possible, a Road Administration must be created, with competent personnel. All these steps are under way. Except for the doubtful practice of selecting road machinery before learning what work it would be called on to do, and the haste with which it was delivered before its care and operation were arranged for, Turkey's current need with respect to roads has been ade-

quately met. No further substantial dollar requirement is likely in the near future.

### *Transportation and Communication*

Turkey's railway system is in deplorable condition, and there are shortcomings which dollars will not correct. A recent Export-Import Bank credit of \$25 million has been drawn upon for locomotives and other badly needed rolling stock and track material. What is required next is engineering and operating skill, and a great deal of maintenance work. Much of this should come ahead of the new construction which is proposed in the five-year plans. In charge of all this is needed one real "railroad man"—American style—who knows what railways are for as well as how to run them. He would have to reorganize the Railway Administration before reorganizing the railway system. According to report, such an experienced man has already been obtained. Whatever additional skill he requires is a need of the first order, and can be met in the same way, by selecting and employing experienced men—and following their advice.

Here again, military considerations may compel a program which cannot be justified on economic grounds. If so, its financing should not be confused with that required to serve the economic needs of the country.

When competent studies have been made to determine *what* should be done to put the Turkish railway system in order, foreign exchange may be required for additional new equipment. Until such studies are made, however, nothing but guesswork exists upon which to appraise the need, and it is by no means certain that they will show a dollar loan is required. Turkey has requested a loan from the Export-Import Bank in which appears one item of nearly \$14 million for a factory to build locomotives at the rate of 125 a year. An essentially agricultural country which has not yet begun to build its own steel plows and modern farm wagons is not yet ready to build locomotives. As long as Turkish authori-

ties are thinking in these terms, our dollars and manufacturing machinery can be used much better at home.

Turkey has recently used dollar and other foreign credits for the purchase of merchant steamers. Additional purchases are not a pressing necessity. American resources should not be spared now merely to enable ownership of existing merchant vessels to be transferred to the Turkish government.

A related need is the modernization of harbor and dock facilities, which will not be urgent until production for export and purchasing power for imports have both increased above their present level. Studies of such projects should be under way, however, for the possibly rapid growth of commerce could be blocked by the inadequacy of port facilities. A moderate program of port improvement is already begun. Port design and the construction of modern facilities for freight handling and storage are matters for experienced specialists. Before an intelligent program of such work can be devised for Turkey, the more basic program of what Turkey is going to produce, and where, and how it is going to be moved, must have begun to take definite form.

Port development in connection with the modernization of the Zonguldak coal operations is, according to report, an illustration of wise procedure. A firm of American consultants has arranged for the necessary engineering work at the mines to be followed by that in the harbor.

The Turkish State Airlines has used substantial dollar credits for the purchase of equipment for this excellent institution. As far as civilian needs are concerned, this system could delay any substantial further development while the remainder of the economy catches up with it. Some foreign exchange will be necessary for replacements and current modernization, but any large expenditures for such purposes in the near future would have to be justified by military considerations. This applies also to any heavy investments in new airfields and their equipment.

Since the war, foreign credits have been used to finance

a progressive modernization program for telephone, telegraph and radio which promises to bring these vitally important services at least to a point where they no longer hold back advancement in other fields. For the time being this is enough to ask.

### *Water and Irrigation*

An adequate water supply is needed to provide irrigation for the farmer and potable water for the people. Here, again, the first need is not for dollars but for engineering studies. There now exist at least two elaborate irrigation projects which have stood for many years three quarters or more completed and lacking only simple lateral canals to let the water out to the farms. What is needed for additional projects is an engineer who will determine, in all important and accessible agricultural areas, what the returns would be in new or increased crops from appropriate investments in irrigation systems. To do this would require no higher mathematics, but it would require a realization of what an irrigation system is for—and what an engineer is for. Following this, if dollars are needed, the need can be demonstrated and supplied. Without this, dollars would be useless.

As for municipal water-supply systems, the prior need is for competent engineering. A simple report setting out this need, with all the relevant facts, would require no computation of returns. Throughout the country, adequate bathing and toilet facilities and proper disposal of sewage are lacking. It is evident that when the five-year plans were introduced to Turkey no advanced concepts of public health and sanitation came with them. Nothing would stand higher on an American's list, and nothing should stand higher on Turkey's. For the necessary equipment foreign exchange would be required, though not necessarily a loan. But if a loan were requested, supported by expert study, the objectives at least would require no defending.

*Agriculture*

Agriculture should be benefited by the public works discussed previously. Without instruction and assistance, however, it is hardly to be expected that the majority of Turkish farmers, long bound by ignorance and tradition as well as by physical limitations, will quickly take advantage of the wider opportunities when they come. To provide the assistance is a duty of the Ministry of Agriculture. New and better seeds will be required, new types of crops to meet export demands, new varieties of fruits better adapted to canning, new fiber crops for industries, fertilizers, measures for disease and pest control and much else that calls for skilled and experienced guidance rather than for foreign funds. Larger-scale operations will call for modern equipment, which, at least to begin with, must be purchased abroad. Even the first steps toward expanded production will require simple modern implements, not now manufactured in Turkey. What these requirements will represent in dollars may or may not have been estimated, but in any case it must be small compared with the new wealth it will help to create.

An interesting light is thrown on the ideas held by the Ministry of Agriculture concerning its functions by the items for agriculture in the recent Export-Import Bank loan application. The forestry division requests \$2 million entirely for sawmills, plywood fabrication, distillation of turpentine, creosote production and other finished-product manufacturing. The Agricultural Works Administration asks nearly \$2 million, all for processing agricultural products—including a raw rubber plant. Under Agricultural Equipment Administration is listed \$23 million, to provide, among other types of implement factories, one plant to make 3,000 tractors a year. There is unquestionably a need in Turkey for some of these plants, or will be when Turkey discovers its 16 million farmers and helps them go to work. But at this stage, some part of the total \$28 million asked for should undoubtedly be spent, and spent quickly, for steel plows, hay balers and



threshing machines, and some more for farm wagons, wheelbarrows and pitchforks.

The lack of tractors has not yet become a limiting factor in Turkey's agricultural development. The use of tractors requires facilities for their repair, which are to be found nowhere in Turkey today. Farming with tractors, generally speaking, is warranted by one or more of three conditions: short seasons, with a consequent need for speed; lack of farm labor; vast areas to be cultivated. Outside of a few state farms, Turkish farm lands are characteristically small holdings, as a result of the land tenure system. As agricultural life is stimulated and new land is brought under the plow, tractors unquestionably will be necessary—for all three of the conditions just stated will face the Turkish farmer before many years have passed. But today many thousands of tons of wheat and corn may be left to rot on the ground, as members of this survey saw—at a time (during 1946) when Americans were conserving food to enable it to be shipped to Turkey's back door. It is not tractors that Turkey needs now, nor dollars to buy or build them.<sup>1</sup>

### *Public Health*

Much of the necessary equipment for health centers, rural clinics, laboratories and other facilities for combating endemic and other prevalent diseases can be purchased only with dollars. In total this sum will not exceed a few millions and scarcely raises the question of a foreign loan. The equipment itself may be in short supply, but subject only to assurance that the Health Administration is completely organized to do the work, these needs should be supplied. Here is an opportunity for aid, through counsel and guidance at least, from one of our great health foundations as well as

1. Some tractors might be needed for mechanized wheat production in case of war, and some for ditching or local irrigation work. But these could be imported at lower cost than the investment necessary to set up tractor production.

from our government, as part of the technical service which comprises Turkey's greatest need today.

### *Summary of Governmental Need for Dollars*

A review of the remaining divisions of the Turkish administration, excepting only National Defense and the state economic activities, reveals some justifiable dollar expenditures, yet the total is nominal in comparison with the Turkish balance of gold and foreign exchange. The conclusion, therefore, is justified that if any administrative division has failed to achieve the normal aims of a republican government in serving the people of the country, its failure to do so cannot be laid to the lack of dollar credits. The Turkish budget is adequate to *finance* every measure which is necessary to enable a vigorous economic growth in the country, and the foreign exchange on hand, including unused credits, is likewise adequate to meet the budgeted needs for dollars. In fact, in comparison with the postwar financial condition of many other countries, Turkey's "reserve" of gold and foreign exchange seems exceedingly conservative, and could easily be reduced to pay for needed imports when that need arises.

As far as the government administration is concerned, the present need is not for dollars, but for a reorientation of its objectives and efforts, and for technical and other expert counsel to make those efforts effective. The resulting improvement in basic conditions, and the increased agricultural production, would create a new source of foreign exchange, which among other benefits would finance the balanced industrial growth Turkey needs to mature as a nation.

### INDUSTRIAL OPPORTUNITIES

If foreign capital as well as foreign advice and experience are to be called in to participate in the development of Turkish industry, there are many possible arrangements. Perhaps the best of these would be companies jointly owned by Turkish and American interests, the Turks contributing lira

capital and national resources, the Americans dollar capital and skilled services. In such cases, the arrangement might include a provision which has proved welcome elsewhere, that a certain part of any future profits be laid aside to retire all or part of the American investment, so that in due time, after Turkish management had been trained in successful operation of the enterprise, it might become wholly or predominantly Turkish.

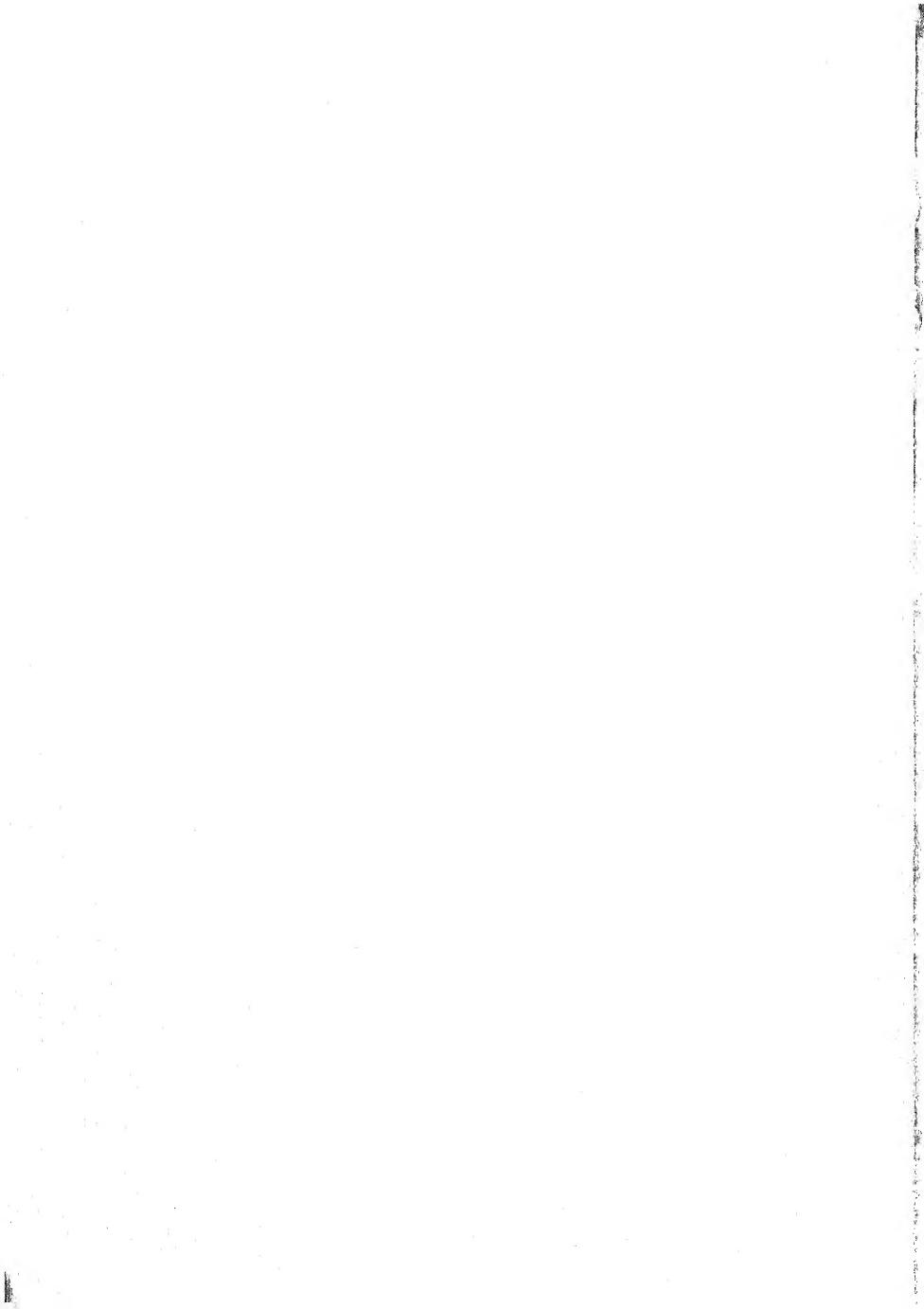
Another method would be for a wholly owned American concern to enter a given manufacturing field merely as a demonstration on a limited scale of what American methods might accomplish. If this example were successful, knowledge of its practices would be available to others, and Turkish companies might benefit accordingly. Or a wholly owned Turkish enterprise might employ an American staff for management and technical direction.

Whatever the method, the important objective is to start a few industrial plants in accordance with sound principles. The experience of going concerns would indicate in detail how laws and practices would have to be modified in order to provide an atmosphere in which Turks would be free to exercise their own initiative. Examples of good management would stimulate imitators and competitors. Once the favorable atmosphere was created and the object lesson of successful operation provided, new opportunities would be seen in many directions, and new surplus wealth would be created to take advantage of these opportunities.

Whether any particular field is at present pre-empted by government or is not occupied at all, the same methods of American participation will be applicable. A wholly owned state enterprise can do little but employ American experts or contracting companies, unless its character is to be changed. But it would be quite possible for the government to be a joint owner of a given enterprise with either Turkish or American private capital, provided the proper legal safeguards were assured. Of course, American private capital



COLLEGE IS A TIME FOR LEARNING, as will be seen from the interested, thoughtful faces of these young students in the liberal arts department of the University of Istanbul.



and management could easily cooperate with Turkish private capital.

It was not possible in this survey to examine particular projects as thoroughly as a potential foreign investor would insist on doing before deciding whether to risk his money. Nor was it even feasible to estimate how much investment would be required in any given instance, for that would depend on the scope which the Turkish government would allow the enterprise, and the terms of any understanding which might be reached. One cement plant, for instance, could be built to operate in the American way, but whether it would be necessary to construct a wholly new one would depend on whether the government would be willing to turn over one of its plants for the project, and if so on what terms. The possible investor would have to discover also how far suppressive controls would be removed. In the case of steel or coal, the opportunity for practical development would be limited only by the willingness of the government to allow that development to be made. The amount of the possible investment would vary according to the size of the project.

A number of illustrations will be sketched to show how American capital and management might be utilized in specific fields. These do not by any means cover the possible opportunities, but they support the conclusion that opportunities exist.

### *Zonguldak Coal Mining*

Eight years of state operation have made negligible improvement in the quantity of clean coal produced and none at all in its costs. It seems extremely doubtful whether state management can successfully carry out the vast program of modernization which will be necessary, or operate the enterprise efficiently after it has been put in order. On the other hand, the Turkish government can truthfully assert that the performance of the former private concessionaires was in-

tolerably poor, that the average coal-mining performance in England over the past few decades has been but little better and that the social conditions which characterize both English and American coal-mining practices suggest that the adoption of Western management might be a mixed blessing at best. Several middle courses are open.

Turkey has already taken steps to obtain American engineering services to study the situation and make recommendations as to necessary improvements. It is understood that the consulting engineers engaged by the government will obtain the expert services of leading coal-mining and equipment specialists. No better first step could have been taken. This one should have been taken much earlier.

The recommendations of these American engineers and experts will lead to a progressive program of mine rehabilitation, including facilities for shipment of coal, which will furnish a dependable basis upon which a dollar loan can be made. The need for dollar credits would be spread over a number of years and would represent a type of financing within the intended purposes of both the Export-Import Bank and the World Bank. If the work were programmed, as it should be, to make increased production promptly available for export into areas of the world where it is needed, this added reason could be advanced in support of the request.

But mere installation of new equipment would scarcely be enough to give assurance of success. Experienced operating management, to make efficient use of this equipment, would also be required. How far this could be accomplished, within the existing political framework, would rest with the Turkish government; but it should not be wholly disregarded in fixing the terms of the loan.

The great area over which the Zonguldak coal deposits are found, and the wide dispersal of present developments among the several districts, would make it possible to adopt the plan just outlined in one or more of these districts, and to contract with an American company to operate in one or

more of the others. Such a contract might take any one of an indefinite number of forms, but, essentially, would provide the conditions under which private enterprise could perform at its best, with jointly shared benefits. Such a plan, adopted for a term of years commensurate with the financial and other obligations assumed by the American contractor, would not interfere with the developments which could reasonably be expected under the government-operated project. The area is of such a size, and the reserves already established so great, that both types of undertaking could proceed without interference, and with double the advantages.

Here is an opportunity for a combination of American skills—coal mining, coal handling, port development, shipping and marketing—to energize American capital and to demonstrate in Turkey the American way of creating wealth from the latent resources of the country. Here is an opportunity, too, for Turkey to learn how these things are done by Americans, without the fear that they must give those resources away or invite the other evils which the capitulations recall.

### *Steel and Related Industries at Karabük*

The Karabük steel mill and its related plants present more than a problem of efficient management. In no proper sense of the word is there an "industry" here to be managed.

The problem of Karabük is one of a large-scale salvage operation. A study by skilled and experienced engineers would disclose what parts of the present plants, alone or in combination, would produce the greatest benefits in terms of present needs. Such a study might disclose that the coking stills, if operated alone, would make by-products of great value for domestic use and for export, and produce a net profit which now is spent wastefully in the remaining operations. Or, the coke ovens plus the blast furnaces might prove to be even better, supplying the country with pig iron, possibly with a surplus for export. Turkey needs a foundry, and



shop facilities to go with it, which can turn out heavy castings and manufacture freight cars and agricultural equipment. In Karabük will be found these facilities, and all the necessary auxiliaries, but as long as the obsession prevails that every advancing country must have its own steel mill, the foundry is used to service steel production instead of to make desperately needed goods. Step by step, in every combination, the equipment assembled at such cost, but of which so little use is made, could be tested by experts for maximum value as a means of developing Turkey.

Here is the place to apply the methods of technical economic analysis—peculiarly the field of the American engineer-manager. What is the *basic investment*, that simplest provision in capital goods which will produce a result of value? What added benefits result from each possible increment of capital? What new products could be made, or what reductions in cost, or what other justification exists, for each proposed expenditure of capital, material or labor? What are the demands for products and the alternate sources of supply, and at what comparative costs? What can be foreseen of the future and of the trends in critical factors? What are the contingent circumstances on which success depends; what are the risks to be faced, and what safeguards can be taken against them? What period of time or what quantity of output will be required to create as much new wealth as is consumed in the undertaking, and how does this criterion compare with alternate uses of the same resources? Questions of this kind, applied step by step and to various combinations, disclose the limits within which each part of each project must be kept to avoid waste of creative resources. The observation applies alike to state and private enterprise. The only difference is that a nonmonopolistic private enterprise cannot exist on any other basis, whereas—for a limited time—the state can consume more than it produces, placing the burden of loss on the people.

*Salvaging the Karabük Establishment*

In the end, American private capital and skill, jointly with Turkish, might yet make Karabük an important industrial center. Its location is unfavorable for a steel mill, but perhaps less so for lighter manufactures. The initial investment would have to be largely written off, as in the case of any salvage operation, and a new evaluation made on the basis of new use. Each factory or chemical project established could be charged with its appropriate share in the usable value of the existing investment, represented not only by mechanical installations but by the community development, power and water supply and other auxiliary services contributing to the new production.

Precisely *what* manufacturing industries might advantageously be located at Karabük is almost impossible to predict. The facilities already available, outside of the steel mill itself, would go far toward enabling many new industries to be successful, by relieving them of the burden of providing their own auxiliary needs. A supply of labor, already trained in certain crafts and housed in a developed community with all necessary facilities, availability of electric power, gas and water, engineers and laboratories, shops for all mechanical needs, a variety of partially processed materials and by-products from other industries, all these and many other advantages would go far toward compensating for the disadvantage of location. Such developments, moreover, would hasten the day when the economy of Turkey could support a resumption of steel manufacture, on a scale which would make it feasible.

To dedicate Karabük to the real needs of the Turkish people would be a challenge to the courage of the officials who hold this trust, no less than to the skill and ingenuity of the Americans who might assist in bringing the change about. That courage is not lacking in Turkey has been proved by much greater achievements, and that skill may be found in

America has been demonstrated time and again. The decision, however, must rest with Turkey.

### *Petroleum Development*

The prospect of finding substantial quantities of oil in Turkey is no more than fair, so far as is known today. When the new boundary was drawn on the south, the great oil region of Mosul and other promising oil areas were left in Iraq and Syria. During the past decade, the Turkish government has continued halfhearted efforts to find oil in various parts of the country, particularly in the great sedimentary area adjacent to the Syria-Iraq frontier. Only recently (1946), under the able direction of the American-trained Director of the Mineral Research Institute (MTA), have steps been taken to employ American geophysical experts and experienced drilling contractors to undertake the search for oil in a modern and adequate way.<sup>2</sup> Adequacy, here, is a relative term. If Turkey's need for oil were of critical importance, there are better ways of finding it, and developing it when found, than to place sole reliance on the thin resources of a government bureau which depends heavily upon a single chief, however competent he may be.

The search for and the development of oil usually involve long and systematic effort directed by men having a combination of special skill and experience which is seldom found outside the oil companies, which have learned their lessons at great cost. Oil exploration and test drilling, carried out in the way which has discovered almost all the great oil fields of the world, involve risking large sums in each venture

2. Much publicity has recently been given to an alleged "discovery" of oil in southeastern Turkey. The news referred to the first well driven by the American contractors on a structure which had been producing small quantities of oil for many years under Turkish government production. This well is reported to have produced about 300 barrels a day at the beginning, as compared with about 30 obtained from Turkish wells on the same structure. More recent reports indicate that the new well quickly declined because of the relatively small quantity of oil so far located in the underground reservoir. Its only significance has been to demonstrate the superiority of modern American drilling practices.

undertaken. An oil company maintains a revolving fund of risk capital for this purpose, and in the long run can expect with considerable assurance that enough ventures will prove successful to restore what is lost on the others. By this process, most of the world's oil has been found, and by it, the cost of seeking oil is spread over all its consumers. It is the process through which a particular country can arrange for oil exploration in a thorough and scientific way, without cost to itself if no oil is found.

If the search is successful, then heavy capital investment becomes necessary, and skill and experience also. These things can be provided by the oil company. Under such a plan, the cost of these services is paid out of the oil production itself, through an equitable division of profits after costs and capital charges have been met. Under modern forms of contract, the mutual rights and obligations of the oil company and the state are defined in terms which guarantee to each a just share in the new wealth created.

The state can proceed alone, as Turkey has done to date, and risk the necessary capital on the single chance that enough oil to repay the cost will be found. In case it is, the resulting benefits need not be shared with anyone. As is always true when a stake is placed on a single throw of the dice, the risk is much greater when the state works alone. To this must be added the risk that the conduct of the exploration will lack the essential ingredient of experienced over-all guidance, regardless of how competently the several specialized functions are separately performed by contractors. These risks must be weighed by the officials responsible for the use of public funds and for the direction of the program, against the rewards and risks of development by an experienced private company.

It is not necessary to adopt either course exclusively. The state could continue prospecting in the area which it is now exploring, and at the same time offer the opportunity to private companies to develop other fields. The chances of

important discoveries are only fair; it is not probable that oil will be available for export. Oil companies which are ready to undertake the task should take the initiative in making proposals to the government, in order to demonstrate that their experience and services are available on reasonable terms.

The reason for thorough and adequate prospecting is not only, and perhaps not chiefly, the possibility of profit. The fact that oil is needed for domestic uses, in transportation and isolated demands for power, is important. Motor trucks, water pumps and small power plants, all dependent upon oil products, are essential in the very beginnings of Turkey's program of economic development. Although oil can be imported at moderate cost from near-by producing countries, a well-executed plan of exploration might show Turkey to be at least self-sufficient in this important source of energy.

### *Shipbuilding and Ship Operation*

A country favored, as Turkey is, with a long coastline bordered by well-populated and productive plains and coastal valleys can make use of coastwise shipping for a large part of its interregional freight movement, most of which originates and terminates in areas tributary to seaports. With the stimulation of production for export, opportunities for ship-owners to make offshore hauls to reach the foreign markets will be added to the coastwise trade. All this, at present, is virtually denied as a field for private enterprise by the discriminatory laws discussed in Chapter 4. With a relaxation of those laws, and the substitution of reasonable controls under a shipping franchise, a highly profitable field for private investment would exist not only in ship operation but also in facilities for building and repair. The construction of small wooden vessels, suitable for coastwise service and offshore traffic with Turkey's maritime neighbors, was formerly an important industry, particularly along the Black Sea Coast, where suitable timber is available.

Some steel vessels could still be bought in the world market from tonnage built during the war, and much shipbuilding and ship repair equipment is lying idle, in both the United States and Canada. The fishing industry alone, in the Black Sea, the Aegean and the Mediterranean, if organized and equipped to take the important place it should hold in the recovery of the country, would support a substantial activity in shipbuilding and repair.

To extend dollar credits to the Turkish government for the purchase of ships is not in accordance with the principles which guide this survey, in view of the severe discrimination against private capital which could take a useful part in the development of Turkey's maritime industries. Shipbuilding and repair, and even harbor developments and dock and warehousing facilities, go hand in hand with ownership and operation of private merchant vessels. No further dollar funds should be diverted from more important needs to subsidize this ineffective state monopoly. If Turkey needs a merchant fleet and other related facilities, the people should at least have a chance to provide these things themselves. Private capital could scarcely lose, except through political risks, and the coastal inhabitants of this great peninsula have the sea in their blood. American shipbuilders, ship operators and port builders should examine this field with the Turks, and join forces with Turkish businessmen to develop the maritime industries with benefit to both and to the growth of Turkey. If this effort falls short, government aid for the purpose may be called in.

### *Food Preservation*

Generally speaking, Turkey is without the means of preserving any of the potentially abundant food products of the country. Even if adequate transportation existed, food supply would be limited by seasonal production. Except for a few cereals and certain kinds of fruit which have inherent resistance to spoilage if dried under proper conditions, Turkey's food must be consumed while fresh. The principal centers

of population and the most densely settled rural districts are almost all in regions where equable year-round conditions enable a local supply of freshly grown food to be maintained. On the highlands of eastern Anatolia, however, the winter diet is restricted to types of food which can be kept through the cropless months in simple storage places or by natural refrigeration.

The lack of preserving facilities means also that in the warm season, when fresh food is most abundant, it spoils quickly, particularly meat, fish and soft fruits. This prevents a sufficiently varied and nutritional diet. A few important centers, notably Ankara, may get limited supplies of such food from a distance, in refrigerated railways cars, but such facilities are not available over the country as a whole. Nor are they adequate even in Ankara.

The export of food is limited to those products, like figs and hazelnuts, which require almost no processing for preservation beyond drying in the sun. Inability to export perishable food, although it could be produced in abundance, is one of the greatest economic handicaps under which Turkey suffers today. Refrigeration, processing and packing, with adequate storage facilities, are necessary to complete the system if Turkey's vast food-producing potential is to be realized.

The field of food preservation is unusually well adapted to private enterprise. The processes and installations required are relatively simple and harmonious with the level of the economy in which they would be introduced. The necessary plants can be large or small, and designed for a wide range of raw products as they become available. A single plant could process all the varieties of fruits which mature in a particular locality from early spring to late in the fall, and between these crops could preserve the early and late vegetables which are planted between the rows. In the livestock regions, the meat-packing plants could maintain uniform production by scheduling the times at which the livestock is

"finished" for slaughter. Small plants for food processing offer opportunities for local investment which have the distinct advantage that the investors know what the plant is for and what it means to their own prosperity. Such plants should be of a size, in each case, commensurate with current needs. Expansion or modification to meet increasing or changing production is relatively simple.

### *Mass Production in Food Preservation*

While the processes and installations in most food preservation operations are not complicated in themselves, skill and experience are as necessary here as in any other modern technical undertaking. This technique, in all its branches, has been highly developed in the United States, and no experimenting is necessary in Turkey. While local plants could be owned and operated as independent enterprises, a food-preserving industry could benefit from an over-all organization, for many reasons, including the following:

1. To maintain uniformity in type and quality of product
2. To make technical and other experienced guidance available to those with limited organizations
3. To coordinate production with the demands of the market through the proper use of storage and to deal with the specialized problems of distribution and competitive selling, particularly in the export trade

This over-all organization might be self-contained in a large-scale undertaking, but to bring its benefits to small or independent enterprises an association of some kind would be necessary.

Refrigeration and storage are suitable either for separate operation as independent private enterprises or for community use through cooperatives or an industry association. The manufacture of containers is an essential auxiliary. Can manufacture, using modern automatic or semiautomatic machinery, requires only moderate investment, but successful operation demands skill and experience which, in the begin-



ning at least, must come from the United States. The large American manufacturers who make machinery for this purpose can also supply engineering service for plant design and special operating men for instructing Turkish staff. In can manufacture there is an advantage in large-scale production, which makes it advisable to concentrate the facilities in a minimum number of factories, no one of which is less than the minimum size which will enable most economic operation.

Another auxiliary service would be specialized transportation, by both motor truck and refrigerated railway car. These functions could scarcely be left to the chance that independent truck operators or the State Railway Administration could be relied upon to provide the necessary service. An independent company, however, could be formed with food transport as its primary purpose.

Seasonal or longer-term supply contracts between food processors and producers could be made, for all food crops and animals. This would facilitate sound financing of producing operations, permitting the purchase of facilities for improved production. Prices, of both processed and raw products, would of course fluctuate with circumstances, but preserved and stored food stocks would no longer be subject to violent seasonal price changes or be forced so often to seek distress markets because of temporary unbalance in the trade.

Once the food has been locally processed and packed, the transportation problem is diminished to a marked degree. Preserved food can be accumulated during transportation peaks brought on by other traffic, and moved to its destination in small lots or large, as transport capacity is available. A constant reserve of packed food could always be available to even out the transport demand, whether by truck or rail or ship.

#### *Joint Enterprise in Food*

A joint Turkish-American enterprise could help to start such an industry. The American contribution in most cases

would include a limited amount of capital for part or all of the equipment which must be purchased in the United States. Its more important contribution would be the full range of experience, both technical and managerial, which would come with the American staff. The Turkish contribution, in addition to the necessary Turkish capital, would be the endeavor on the part of the Turkish government, the investor, the company staff and the food producer to make the undertaking a success.

Despite its importance both to the people themselves and as a source of foreign exchange, no state enterprise has yet entered the field of food preservation. So far as is known, no special laws or regulations exist which constitute conspicuous barriers to private undertakings in this sector. Such state institutions as do operate in adjacent fields, such as Toprak and the tea monopoly, or such laws as govern special aspects of food supply—for example those applying to the formation and conduct of cooperatives—cannot be barriers to the establishment of the food-processing enterprises just discussed. In any case, it must be assumed that the Turkish government would take the necessary steps to remove such barriers as might be met. Of course, the general obstacles to private enterprise, and particularly to foreign interests, would have to be removed before this program would warrant serious consideration.

The type, location and capacity of each installation or facility involved in this project must be determined by careful study conducted by competent men. This industry, despite its great possibilities, could be as great a failure as any other, if the lessons of experience elsewhere were disregarded in Turkey. Political considerations and fictitious social aims would have to be set aside, and the criteria of sound economic and technical practices permitted to fix all operating conditions of importance. Only simple safeguards should be required to protect the national and public interest against abuses from private interests.

The commercial opportunities open to enterprise in this field can scarcely be estimated in advance. It is safe to say that they are vast. The field embraces the entire range of food materials produced in Turkey—fruits, vegetables, meat and fish, poultry, eggs and dairy products, such derivatives as animal fats and vegetable oils, and various food specialties.

The possibilities outlined here should come high on the list for detailed study of American opportunities in Turkey, and high also on the list of what Turkey sets out to accomplish *for*, though preferably not exclusively *by*, herself.

### *Manufacture of Simple Agricultural Implements*

The equilibrium long established in Turkish agriculture between no roads, no tools and no surplus production cannot be succeeded by an equilibrium on a higher level unless all the necessary factors are provided in due proportion.

If we except the state farms, there are almost no tools of modern type used on Turkish farms. Most farm implements are simple to manufacture. Modern plows, cultivators, disc harrows, mowing machines, and hand tools such as shovels, wheelbarrows and even iron pails, form part of the essential equipment which is required for a swifter tempo of farm life and a higher level of production. A glance at the pages of a large American mail-order catalog of a few years ago will show what the farmer needs to multiply his effectiveness in every department of rural life. A fraction of the hundred thousand artisans who now hammer out crude implements of medieval design for medieval uses, if put to work in a modern plant—and a simple plant at that—using American factory practices under American supervision as long as this were required, could supply Turkish farmers with the tools they need in order to benefit from new road systems and to supply new market demands.

There is no need to make estimates here of the costs of such plants, or of the prices at which the implements could be sold. Nor is it necessary to estimate how many modern

farm wagons, plows or pitchforks would be required. In Turkey there are few.

Those who have learned to manufacture them in the United States have learned also how to determine what combination of implements can be manufactured to best advantage in a single plant, and where to draw the line, under prevailing conditions, between what should be manufactured locally, what merely assembled there and what imported in its finished form. The first such undertaking could safely be of sufficient size to enable efficient production of a few common types of implements. As a result of this experience the plant could be extended and additional ones built in accordance with the developing market demand.

### *Cement Manufacture*

Cement has become so universally used in standard modern construction that its consumption in a country is not a bad index of general economic advancement. In a group of nations which represent a high level of development, including Czechoslovakia, Argentina, Germany, the United Kingdom, the United States, France, Italy, Sweden and Belgium, the consumption of cement per capita (immediately prewar) ranged between 200 and 300 pounds a year. In typical countries less advanced economically than the first group—Hungary, Romania, Yugoslavia and Mexico, all approximately the same in population as Turkey—the per capita consumption of cement ranged from 60 to 80 pounds a year. In Turkey the rate is less than 35 pounds a year.

If we take the existing manufacturing capacity in the country as 300,000 tons a year (although it is questionable whether the existing plants could maintain a sustained production at that figure), and estimate that during a five-year period of active economic progress the per capita consumption will increase to three times its present figure (or to approximately 100 pounds a year), we might accept as a rough approximation that Turkey will require an additional cement-

manufacturing capacity of 600,000 tons. A recent Sümer Bank estimate placed the existing plant capacity at 400,000 tons a year and gave one million tons as present potential demand, thus arriving at the same figure of 600,000 tons a year for needed additional plant capacity.<sup>3</sup>

The materials necessary for cement manufacture can be found in almost every part of Turkey. These include limestone and clay of acceptable quality, and coal or lignite for fuel. If political difficulties can be overcome, cement manufacture offers an excellent opportunity for American participation.

### *Brick, Roofing Tile and Other Building Materials*

For general building, brick and other burned clay products are second only to cement in importance. Most of the present manufacture of these products is in the vicinity of Eskişehir, in west central Anatolia, where both good clay deposits and coal for fuel are found. Present production is by private enterprise. It represents only a fraction of the quantity of both brick and tile which would be required if there were in Turkey today even a modest rural housing program aimed at replacing mud, stone, thatched or rough board shelters of a primitive type with simple modern dwellings, and a program for replacing dilapidated frame houses in the towns and cities with modern buildings.

The annual production of building brick is about 15 to 20 million. Roofing tile production is approximately the same. A two- or three-room dwelling requires about 10,000 bricks and 1,000 roofing tiles. The maximum possible brick housing program is therefore something like 2,000 dwellings a year. In the western portion of Turkey, where most of the population lives, clay and fuel for brick and tile are abundant, while timber is limited.

Turkey's population is increasing at about 400,000 a year. Even assuming eight persons to a house, this means a demand

3. See footnote on page 98.

for 50,000 dwellings annually. Government figures show a total of 3.5 to 4 million houses in Turkey. Taking the lower figure and assigning a life of 50 years to a house, we reach a replacement rate of 70,000 houses a year. Even without including the 100,000 houses which have been destroyed by earthquakes during the past seven years (with another 108,000 damaged), the foregoing figures indicate a need for building material so far in excess of supply that the only question is where to begin to fill this need at least cost and greatest speed.

Other materials are of course available. Some timber could be utilized, although in the rich agricultural regions of the west, watersheds should not be divested of timber any faster than reforestation takes its place. Compositions, such as mixtures of cement and asbestos or other natural minerals, are commonly used in other countries and can be manufactured at low cost where suitable ingredients exist.

Slag from the blast furnace operations at Karabük has been accumulating since the plant went into operation. It can be used to mix with cement for an excellent building material. Also, the molten slag can be blown into "mineral wool," which is a valuable insulating material. In certain localities unburned clay brick (adobe), with suitable outside coating, makes an acceptable building material.

The entire field of housing is one which requires expert study before a comprehensive program can be developed. This discussion is limited to the need for manufactures which will be required before any substantial program can even be started.

Lime can be manufactured cheaply in almost any part of the country. Glass for windows also would be needed, in quantities vastly beyond present manufacturing capacity. Paint is almost unknown in Turkey, even where timber houses are the rule. One reason for its nonuse is discussed in connection with taxation, but another reason is that paint of standard quality is not manufactured in significant quantity

anywhere in the country. Roofing paper could be produced from the coal-tar by-products obtained from coking coal (at Karabük and Zonguldak). Plywood and wallboard are now produced on a small scale in several private factories; they could become important as building material if manufactured in large quantities.

The list of products for house building is limited only by the ingenuity of those who attack the problem. Turkey is rich in raw materials and the potential market is vast. The United States has pioneered for the world in devising and producing building materials of low cost and high utility, adapted to every condition of climate and type of construction. It is American skill, ingenuity and experience in this field, more than dollar capital, which is needed now in Turkey. The real requirement is for mass production at low cost.

#### *Foundries for Iron, Steel and Other Metals*

Castings are made for special purposes at the steel mill in Karabük, and several of the larger state-owned enterprises operate small foundries for their own needs; for example, there is a small but well-equipped one in the shop of the Sümer Bank textile mill at Kayseri, and another in the railway repair shop at Sivas. None of these, however, is available for general use, nor have they capacity to supply more than their own minor demands for castings. None is equipped for casting steel (except as means are occasionally improvised at Karabük). A certain amount of light casting is done in small bazaar shops, but this can be disregarded. There are no modern commercial foundries in the whole of Turkey.

No statistics are available as to the potential demand for castings in Turkey—nor are any required to support the conclusion that the need for foundries is great. How Turkey could have gone on for so many years pursuing a program of "industrialization" on the advanced level suggested by some of the state factories without adequate facilities for casting metals is difficult to understand.

The modern iron foundry established in Istanbul a few years ago, which was obliged to close its doors because experienced men could not be found for its management or operation, had plenty of orders. The owner of this establishment exhibited correspondence to a member of this survey group imploring him to undertake very large commitments for the production of cast iron wheels for railway and mine cars, and simple castings needed in great quantities for railway and mine use and for many other common purposes. Unfortunately, the proprietor had undertaken first to produce large bronze ship propellers. By the time the war was ended, he had completed only one and both his working capital and his enthusiasm were exhausted.

A desperate need of the country could be met by American skill and experience in foundry management, through the establishment in one or more principal centers of modern foundries. One of these should be at Karabük, where advantage could be taken of other facilities already available there. Another should be at Istanbul. These foundries should be run as private undertakings, responding to the real demand for their product and supplying it at low cost.

In addition to producing castings for existing demands, a high-grade foundry could make castings which could be used as partially processed material for other manufacturing industries. Simple centrifugal pumps for irrigation purposes, for example, are no more difficult to manufacture than the agricultural implements discussed earlier. Road rollers and rock crushers for road and other construction work could be produced in quantity with only the most elementary skill.

### *Municipal Power Systems*

Every city in Turkey is in need of additional electric generating and distributing capacity. Municipal systems are the only sources of power available to private persons and industries, unless private generating plants are built as part of the factories themselves, as in most of the state manu-



facturing plants. Detailed studies for expansion have been made by Turkish engineers, but because private electric systems have been absorbed by the state, and an ambitious program of expansion is announced by the central government, private capital is unwilling to take the risk of new ventures in this field. The Turkish government has stated that it will protect and support such private developments, but in fact it has done nothing to correct the conditions which inhibit private investment.

The total present generating capacity in Istanbul, Ankara and Izmir is 83,000 kw. (see Chapter 6), which, according to estimates made by the state engineers, is approximately one half what the present demand would be if capacity were available to supply it. The need for substantial new capacity is all too evident.

American manufacturers of all the types of equipment needed could afford to send competent engineers to make their own examinations, and prepare proposals for each project, setting out its technical and financial aspects. If the Turkish government chose to go ahead, the American manufacturer could aid in arranging a loan for the dollar requirements from (or guaranteed by) the Export-Import Bank. It may be assumed that a detailed examination by an American engineer of recognized competence would be prerequisite to favorable action by the bank, at least for an initial undertaking of this character.

An American engineering firm of high standing might perform the same function if the Turkish government would agree to pay for the necessary investigation. In both cases the risks of development, which would be slight, would be borne by the Export-Import Bank. Its normal procedure would require appropriate assurances from the Turkish government that the conditions stipulated in the engineer's report would be met.

If an American manufacturer or engineering firm would carry through one such project directly with the Turkish gov-

ernment, the way would be paved for subsequent projects to be arranged in similar fashion by groups of Turkish private investors.

The criticism may be made that to proceed with the expansion of generating and distributing capacity in one or more of the principal cities before making the general power surveys recommended in the following paragraphs invites the very lack of foresight which has been condemned elsewhere. The main object of the suggestion for strengthening the municipal systems, however, is first to correct promptly a situation which should not be allowed any longer to obstruct important current development, and second to establish an important means of collaboration between Turkish and American interests in connection with relatively small projects, as a first step toward similar relations on much larger ones. The most serious lacks in the municipal systems might be corrected in a year, whereas to defer these steps until the other studies have been made would invite serious breakdowns in the economic life of these important centers.

### *National Power Network*

At least the main characteristics of a national power development program should be worked out and kept in mind while intermediate steps are taken in response to current requirements. Engineers of the Electrical Energy Institute have prepared such a general program for inclusion in the current five-year plan, but there is doubt whether that study was based on sound economic principles. What appears to be needed is a review of the present national network plan by competent American engineers. Preferably such a study as this should be made by consulting engineers who act on behalf of the Turkish government itself, rather than as part of a construction contract in which the engineers have an interest of their own to be served. Such professional detachment is particularly important in making basic studies on which long-range development policies are to be based.

The general program embraced in a preliminary study need not include detailed analyses of individual power stations, but should indicate the magnitude of prime energy resources (water power, coal and lignite) in various localities, establish the principles on which progressive development should proceed, make provision for the accumulation of necessary data and assist the government to improve the administrative organization which is responsible for this important aspect of the national economy.

### *Power for Northwestern Anatolia*

The need for electrical energy for present as well as future developments in northwestern Anatolia—a relatively advanced and densely populated area—makes it appear highly probable that at least in this district early attention must be given to large-scale power development and interconnected systems. For this reason, a detailed investigation in this district, by competent and experienced American engineers, is classed as a present need. Ideally, the general plan should come first, but the work already done by the Electrical Institute can offer a guide for the survey, in view of the critical scarcity of power in Istanbul and other cities of the area.

### *Manufacturing Industries in General*

The industrial activities discussed in the preceding sections are those which are important chiefly for their effect in *stimulating production*. These can be distinguished from both light industries aimed at satisfying consumer wants in general and heavy industries which regularly provide the machinery or raw materials for industrial use, once industry has become established. Since this study is concerned chiefly with the possible American contributions toward advancing the economic welfare of the Turkish people, and since that economy is at present characterized by stagnation, the initial stimulation of productive activity has a high importance. Other aspects of economic and social progress will follow inevitably.

There is a sufficiently wide range of opportunities in the types of new activity which will stimulate production directly to absorb all the American resources and attention which are likely to be available in the near future. It is not likely to be helpful, therefore, to develop at length in this survey the opportunities for manufacturing articles in Turkey which would be valuable only to satisfy increasing consumer demands, or to replace articles now imported, for the sole purpose of saving foreign exchange. Much less is it important as a part of this study to analyze the still more remote industrial function of manufacturing heavy producer goods. All these activities are to be encouraged—and, generally speaking, in the order just named—but these stages in Turkey's economic development must come in proper sequence.

Until Turkey's 20 million people have started to produce local surpluses for exchange within the country plus an overall surplus for export, no new purchasing power will be created with which to satisfy new wants. Soap and paint cannot be sold until the prospective buyer sells his beef, grain and tomatoes. If selling these requires refrigeration for the beef, transport for the grain and a canning plant for the tomatoes, then this is where real industrialization begins.

Toilet soap can be manufactured in Turkey, with substantial benefit to both manufacturer and consumer, as soon as it can be paid for. This is an example of innumerable goods, many of which are now produced on a minute scale by home or bazaar craftsmen. It will be the function of modern industry to produce them in abundance, with better quality and at lower price. The main stream of new demand, as it swells with buying power, will follow the natural pattern of men's wants. Food, clothing, tools and building material will come before soap, and this before storage batteries and cellophane. This principle applies regardless of how the curve of demand may be skewed by the existence, at any particular time, of groups with widely differing purchasing power. When the technical and financial analysis of prospec-

tive plants for the manufacture of "luxury" goods becomes the important type of problem in Turkey, an economic survey like this one will no longer be needed. Its place will be taken by the market analyses and technical and financial studies which are a part of modern industrial practice.

### *Unrealistic Projects*

This brings us to a brief consideration of the long list of manufacturing enterprises which are conspicuous in the current five-year plan as reported to the authors by Sümer Bank and Eti Bank—enterprises which will be part of the basis of any request for a foreign loan.<sup>4</sup> Generally speaking, there is not one of them that could be recommended to American investors. What is there about Turkish thinking that appears to make them attractive there?

Turkey now produces 4,000 tons a year of nitrate ash for fertilizer. Sümer Bank has proposed a new plant which would produce 60,000 tons a year (along with other nitric products). The "financial analysis" accompanying this item indicates the total cost to be 37 million liras (\$13 million) of which \$6 million would be required in foreign exchange. If the 60,000 tons of nitrate were purchased abroad, so it is explained, it would cost \$2 million a year—thus the new plant is credited with a saving which would repay the \$6 million loan in three years.

Turkey would probably not buy abroad the 60,000 tons in any case, and the hypothetical "savings" might easily be wasted. Aside from such considerations, it would be interesting to know how the 37 million liras of investment would be returned to the Turkish people or the country's treasury. In the case of fertilizer, this must be accomplished only through crop improvement. Actually, the need of fertilizer in Turkish agriculture is not yet of pressing importance—although some day it may be—because there is no way of distributing a larger agricultural product.

4. See footnote on page 98.

Unless the results just outlined are realized in practice, the investment must be justified on other than commercial grounds. Since many other Turkish state plants of far less intricacy than this have averaged less than half capacity and admittedly operate at a loss, this project scarcely deserves even these few lines, except to illustrate the type of manufacturing which Turkey needs *not to have*.

Another proposed manufacturing plant, to produce airplane engines, Diesel engines and various other types of complicated machinery in Ankara, falls in the same class, as do the projected locomotive-manufacturing plant and many others to which attention has been called previously. Men who propose or defend such undertakings are not likely to be regarded by Americans as good business partners, nor is a government administration which allows public funds to be spent on such projects likely to be regarded as a source of security for foreign investments.

In general, with regard to new manufacturing industries in Turkey, it does not appear that their lack, *except for those which provide the people of Turkey with the means of an increased personal production*, is what is holding back progress today. While there undoubtedly are some undertakings which, if pursued in Turkey with typical American enterprise, would prove profitable to investors under favorable conditions of taxation, foreign exchange control, etc., profit alone is not the basis on which American participation will be helpful to Turkey in this stage of its development.

#### MISCELLANEOUS SERVICES

The need for technical services, in public health, certain fields of education, engineering and managerial technique and the like, has already been discussed.

It should be emphasized here that it would be to the advantage of the Turkish government to retain on a consulting basis a highly qualified engineer or engineering firm, to analyze *on behalf of the Turkish interest* the broad implica-

tions of each major project, and to take charge of the detailed planning which determines its adequacy and economy. If such study and supervision are left entirely to contractors whose own interests are affected by the size, the cost or other features of the undertaking, economic utility to the nation is not likely always to be the sole criterion by which the nature of the undertaking is decided. Any Turkish private undertakings would similarly benefit by independent advice.

Although in its narrower sense managerial skill, as the term has been used in this book, relates to a modern commercial enterprise, it also includes certain specialized techniques which are common to many types of business. There are experts in the field of merchandizing who can guide Turkish enterprises to short-cut much trial and error in determining the potential demand of consumers for various commodities, and in organizing the distribution and sale of goods with greatest effectiveness. This is a field in which Americans have excelled in their own country, and while there is valid objection that the so-called "high pressure" marketing methods have produced much waste in the American economy, such excesses are not likely to characterize the beginnings of a Turkish marketing system aimed at moving a maximum of needed goods from producer to consumer.

Advertising and sales promotion, in certain of their forms, are an essential part of American merchandising practice. Here again unpraiseworthy aspects of the American system are glaringly obvious to the most casual observer. Yet, sales promotion activities in America are in large part responsible for the high living standards of the mass of the population, for they create and sustain the high demand which makes possible mass production and low costs. Like "high pressure" sales technique, advertising must be regulated in the public interest to avoid misrepresentation. It will be a long while, however, before advertising is likely to produce in Turkey, as it has in America, a popular demand for goods of spurious or fictitious value. The Turkish people have great need for

the type of education which sound advertising provides. It is in the minds of the people that the desire for better living must begin.

A great service would be rendered if appropriately selected American books and magazines were made more available. American popular literature reflects, and in some measure produces, the alert and facile adoption of new information and ideas which is a national characteristic. Not all the ideas thus disseminated are worthy of cultivation, even in America, but in a healthy community the good crowds out the bad. Such publications would find a wide reading in all the Turkish cities and most of the larger towns, where English is spoken by many and is being studied by an increasing number in the schools. Many Turkish publications would pick up much from such American sources if the material were made available to them. The newsstands and bookstores are active in Turkey.

Among the auxiliary services for which needs exist in varying but important degree are purchasing agencies, staffed by experienced Americans who know what is available in the United States and how to get it. (See Chapter 8.) Insurance agencies, with American connections, and branches of American banks, would also greatly facilitate the broader economic developments which are the objective of Turco-American collaboration.

The establishment of servicing facilities for the maintenance of American equipment, both warehouses of stock for prompt supply or replacement and shops for repair, would be useful. Another service which might become a large-scale industry in itself, and for which American experience and enterprise would be immensely valuable in the beginning, is freight hauling by motor truck, with all its own auxiliary services such as repair shops and warehouses. The organization and management of such services would require careful study, but the opportunity for developing a much needed and a profitable service would justify whatever effort it took.



*Possibility of Tourist Trade*

Few countries in the world, even including those whose names have become symbols for vacationing and scenic beauty, can equal Turkey in appeal to travelers, and it is doubtful whether any can surpass her in the natural and historical attractions which form the basis of the tourist trade.

It is too little known that Turkey, besides her natural endowments of climate, which ranges from Mediterranean to Alpine, and her rich variety of physical attractions, including seashore, towering mountains, forests, lakes and streams, also comprises the largest part of the ancient territory with which our classical memories are associated. What is now Turkey was Greece in the times of Homer. Here was Troy, in the plains of Ilium. Here are the ruins of Ephesus and Pergamum and of many other cities of classical Greece. Here Strabo was born, and Diogenes. Here passed Xenophon with his Ten Thousand, and later Alexander on his conquest of western Asia. Here it was that Alexander cut the Gordian knot. Here, deep in Anatolia, near Zile, Caesar overcame Pharnaces—the victory of which he said, "I came, I saw, I conquered." In Tarsus, where excavations are now exposing the remains of cultures that were old in the early Egyptian dynasties, St. Paul was born, and from here he set out on the expeditions which produced his Epistles to the Galatians and the Ephesians, forefathers of the present Turks.

Istanbul itself—Constantinople in olden days—with its monuments of imperial Roman power and of later Byzantine splendor, could alone justify the claim that Turkey possesses supreme historical interest and architectural beauty.

The importance of tourist trade is not its commercial importance alone, great as that might be, but the benefit which would come from a growing familiarity on the part of Americans and others from the West with Turkey and the Turks. Economic surveys are valuable in their way, and joint investments in theirs, but no understanding between peoples is so

complete and so compelling in times of stress as the understanding that comes with personal association.

It needs to be known in Turkey that American tourists do not need luxury hotels to attract them. Plain, clean lodges with good beds and good food would be enough and would be simple to provide. The country is already well served by airlines. With present railways and roads now being improved, most of the regions of greatest tourist attraction are reasonably accessible.

Promotion of tourist trade would require removal of political obstructions, as well as establishments for tourist living and transport between points of interest within the country. The state could well collaborate with private industry in all this. American assistance would be required primarily to guide the Turks in their appeal for American visitors. Airlines and passenger ship companies, as well as travel agencies, could all find interests of their own to be served by collaboration in such a program.

### CONCLUSION

This survey of Turkey, made with the limited intention of discovering how Americans can best help in the economic development of the country so that the Turkish people may benefit, leads to a few broad conclusions.

Turkey is a nation of large and unusually varied resources, both natural and human. It has rich mineral deposits, great sources of mechanical power, favorable climate, a strong agricultural base, people of high potential competence, ample land. It occupies a position central for trade by land or sea.

This country remains, by the standards of western Europe or the United States, largely undeveloped. Twenty-six years of the Republic have seen many sweeping reforms and an ambitious attempt at industrialization, but as yet the Industrial Revolution has barely touched the daily lives of the great majority of the Turkish people. Their levels of living have been improved little, if at all.

The first necessity for further advance is increased governmental activity in public works—roads, railroads, irrigation, drainage, expansion of local power stations—and progress in education, agricultural extension work, sanitation and health measures.

Another urgent need is for small and light industries such as foundries, machine shops, factories for producing simple agricultural utensils, wagons and other elementary means of transportation, plants for the assembly and repair of agricultural, road-building and other essential machinery, the manufacture of building materials. A great opportunity exists in industries for food processing and preservation. Meanwhile it is essential to improve the productiveness of the coal industry and to reorganize the steel plant at Karabük so that it can serve the nation's real wants.

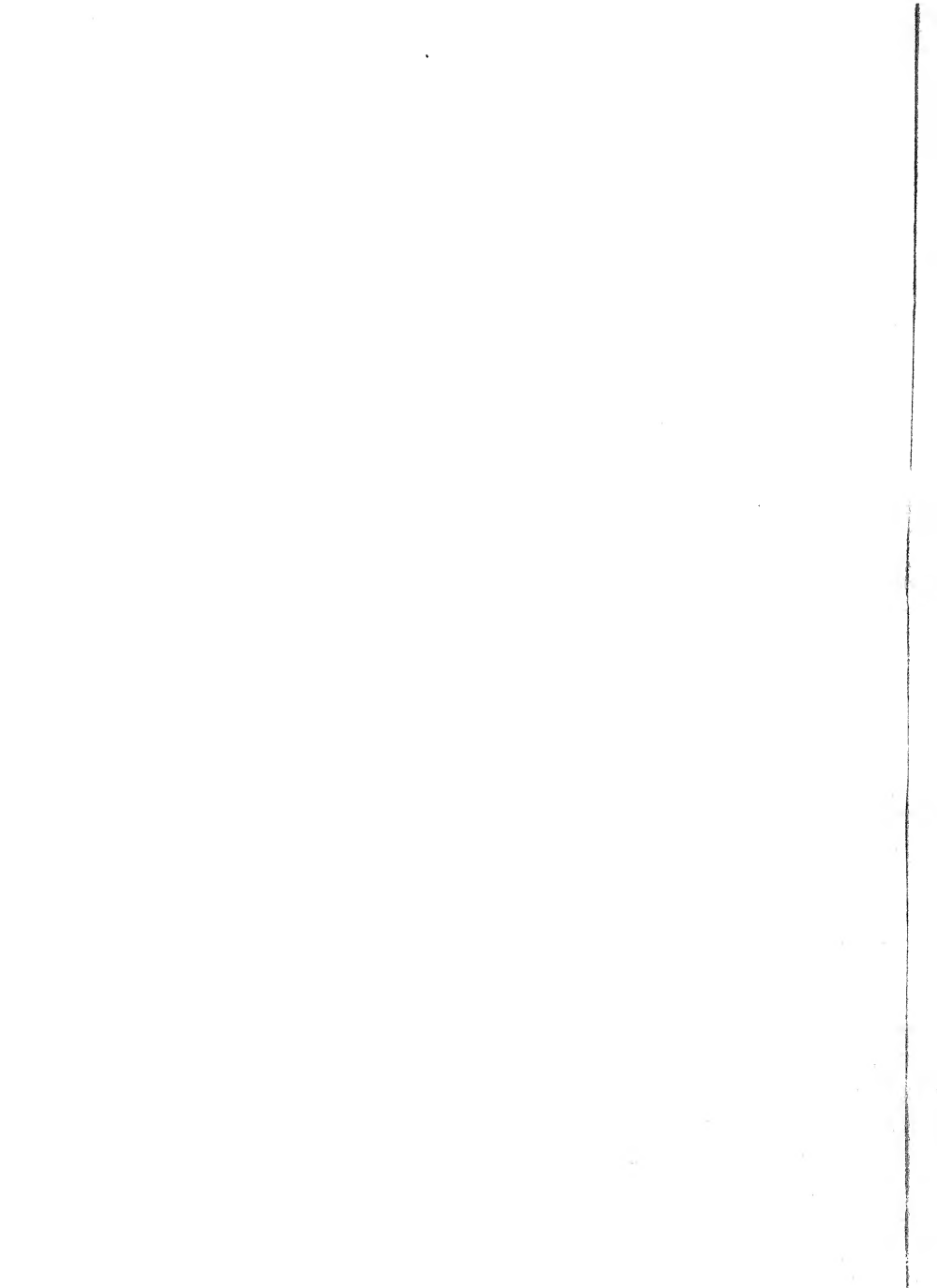
Attention to these matters would increase the production and the real wealth of the Turks, laying a solid basis for an extension of manufacture and trade. Other projects should be postponed until progress has been made in the elementary requirements for stimulating production.

In order to lay the foundations for progress Turkey's need is not mainly for money capital. Domestic capital is available if it could be brought out of hiding. The government itself could finance most, if not all, essential public activities, including the gold exchange for foreign purchases, if it concentrated its attention on the primary necessities instead of pursuing its ambitious but premature program of large-scale industrialization.

The greatest need which Turks themselves cannot yet fill is that for trained advisers, good managers, competent technicians, industrial and commercial know-how. This is a need which Americans can supply, provided the opportunity is offered for them to exercise their talents. Government or private undertakings could engage Americans with the required skills. American business organizations could go into partnership with the Turkish government or private capital,

or could establish experimental branches of their own, under agreements and safeguards acceptable to Turkey and the Americans in question. They could bring with them their managerial staffs and their experts, plus such capital as was necessary to pay for imported machinery and materials.

Little opportunity either for the Turks or for American collaborators will exist, however, unless there is a fundamental change in the attitude of those who exercise political control in Turkey. The economy must be operated in the interest of the people as producers and consumers rather than in the interest of job-holders and the single-party bureaucratic machine, if it is to be productive of increased wealth and welfare. Neither public nor private enterprise can perform its proper function unless attention is concentrated on the most efficient production of the most widely needed goods. Exorbitant and harassing taxes must be reformed, arbitrary and capricious rulings and orders must be prevented, political invasion of managerial responsibility must be avoided, favoritism and discrimination must be ended, before the Turks will be able to make good use of their rich resources or Americans will be able to offer them effective help in doing so.



## APPENDICES



## *Appendix 1*

### STATISTICAL TABLES

The tables in this appendix were compiled from various sources, some from published materials and some from reports especially prepared for the Twentieth Century Fund survey team by government officials. Data in one table therefore may not exactly accord with data in another. Sometimes the discrepancies are merely due to rounding, but it will be well to remember that statistics on Turkey are to be taken as a general guide rather than a precise measure.

Values of the lira in dollars and cents are shown in Appendix Table 1. Equivalents of the weights and measures used in this appendix are as follows:

hectare	=	2.471 acres
kilogram	=	2.2046 pounds
short ton	=	2,000 pounds
metric ton	=	2,204.6 pounds
long ton	=	2,240 pounds



TABLE 1  
OFFICIAL RATES OF EXCHANGE IN ISTANBUL, ANNUAL AVERAGES,  
1923-1947 <sup>a</sup>

Year	Liras Per Dollar	U. S. Cents Per Lira
1923	1.53	65.57
1924	1.87	53.36
1925	1.85	54.11
1926	1.92	52.11
1927	1.95	51.36
1928	1.97	50.86
1929	2.07	48.22
1930	2.12	47.13
1931	2.11	47.33
1932	2.11	47.35
1933	1.66	60.39
1934	1.26	79.24
1935	1.26	79.55
1936	1.26	79.55
1937	1.26	79.18
1938	1.26	79.36
1939	1.28	78.25
1940	1.38	72.57
1941	1.31	76.22
1942	1.31	76.39
1943	1.31	76.51
1944	1.31	76.51
1945	1.31	76.28
1946	1.82	55.04
1947	2.83	35.34

Source: *Conjoncture*, Ministry of Commerce, Ankara.

a. From April 1, 1938 to March 31, 1941 the exchange market was at Ankara instead of Istanbul.

Note: The existence in recent years of a premium on all exports and imports, in free currencies—dollar or sterling—modified in practice the official exchange rates listed here. The going commercial rate of 1.82 liras to the dollar is therefore a better measure of the dollar value of investments and goods prior to the devaluation of September 7, 1946. The premiums were a partial recognition of the disparity which was finally adjusted by the devaluation.

TABLE 2  
USE OF LAND IN TURKEY, 1934 AND 1944 <sup>a</sup>

	Per Cent of Total	
	1934	1944
Total	100.0	100.0
Area under cultivation	13.7	16.6
Cereals	7.6	9.0
Leguminous (dry) vegetables	0.6	0.4
Industrial crops	0.6	0.8
Others	0.0	0.2
Fallow	4.8	6.2
Meadows and grazing lands	57.3	50.2
Meadows	4.4	4.6
Grazing lands	3.7	3.4
Pastures	49.2	42.2
Market gardens and truck farms, orchards, olive groves, vineyards, etc.	1.6	1.8
Market gardens and truck farms	0.2	0.2
Orchards	0.4	0.6
Vineyards	0.5	0.6
Olive groves	0.5	0.4
Rose gardens	0.0	0.0
Forests	11.8	15.3
Unproductive area	15.6	16.0
Unproductive lands	14.4	14.8
Lakes	1.2	1.2

Source: *Statistical Abstract of Turkey, 1942-1946*, Bureau of Statistics, Ankara, 1947, pp. 165-66.

a. Estimated. The total land area of Turkey is some 195,240,000 acres, including enclosed lakes but not seas.

TABLE 3  
YIELDS OF SELECTED CROPS, 1941-1945

Crop	1941	1942	1943	1944	1945
(Kilograms Per Hectare)					
Tobacco	761	777	766	790	710
Wheat	793	976	1,002	842	585
Barley	863	1,121	1,117	843	575
Rye	699	930	905	888	565
Corn	1,289	1,346	1,658	880	578
Rice	1,354	2,282	2,406	1,759	1,792
(Pounds Per Acre)					
Tobacco	679	693	683	705	633
Wheat	707	871	894	751	522
Barley	770	1,000	996	752	513
Rye	624	830	807	792	504
Corn	1,150	1,201	1,479	785	516
Rice	1,208	2,036	2,146	1,569	1,598

Source: Based on *Statistical Abstract of Turkey, 1942-1946*, Bureau of Statistics, Ankara, 1947, pp. 183-84.

TABLE 4  
VALUE OF COMMERCIAL AND INDUSTRIAL CROPS, 1940  
(In Thousands of Liras)

Crop	Value	Per Cent of Total Value <sup>a</sup>
Cotton		
Fiber	40,396	31.9
Seed	6,749	5.3
Tobacco	29,697	23.5
Potatoes	23,346	18.9
Onions	9,815	7.8
Sesame	8,451	6.6
Flaxseed	5,310	4.2
Sugar beets	829	0.7

Source: Kazim Koylu, "Situation of Agriculture in Turkey," *International Review of Agriculture*, International Institute, Rome, May 1943.

a. The total value of these crops amounted to about 126 million Turkish liras in 1940; that is, about 19 per cent of the value of all crops.

TABLE 5  
PRODUCTION OF PRINCIPAL CEREAL CROPS, 1927 AND 1940  
(In Thousands of Metric Tons)

Cereal	Production		Percentage Increase
	1927	1940	
Wheat	1,333	4,068	205
Barley	624	2,249	260
Rye	101	482	377
Oats	59	328	456
Corn	130	757	482

Source: 1927 figures based on *Statistical Yearbook of the League of Nations*, League of Nations, Geneva, 1928; 1940 figures based on Kazim Koylu, "Situation of Agriculture in Turkey," *International Review of Agriculture*, International Institute, Rome, May 1943.

TABLE 6  
PRODUCTION OF MANUFACTURED TOBACCO, 1936-1945

Crop Year	Cigars	Cigarettes	Pipe	Snuff	Waterpipe
	(Pieces)	(Kilo-grams)	(Kilo-grams)	(Kilo-grams)	(Kilo-grams)
1936-1937	—	9,108,149	5,607	2,750	75,350
1937-1938	285,233	9,510,410	5,297	2,750	80,185
1938-1939	454,595	9,751,912	5,263	2,950	78,868
1939-1940	512,020	10,598,489	5,808	3,082	73,838
1940-1941	286,145	9,926,771	7,531	3,050	80,000
1941-1942	821,080	12,014,268	8,169	3,000	65,065
1942-1943	647,080	12,029,250	6,530	2,540	30,641
1943-1944	1,726,055	14,817,911	8,432	2,700	14,290
1944-1945	3,488,896	15,258,221	8,605	3,375	53,948

Source: Turkish Tobacco Monopoly.

TABLE 7  
PRODUCTION AND SALES OF SUGAR, 1939-1945  
(In Short Tons)

Year	Production	Exports	Total Sales
1939	104,177	31,609	110,914
1940	97,704	8,887	109,460
1941	95,926	10,906	119,627
1942	61,172	—	68,424
1943	106,282	3,255	47,325
1944	98,990	1,750	82,724
1945	98,991	487	90,224

Source: *Bulletin Trimestriel de la Banque Centrale de la République de Turquie*, No. 58-59 (January-June 1946), Ankara.

TABLE 8  
PRODUCTION OF FILBERTS, 1940-1946  
(In Short Tons, Unshelled Basis)

Year	Production
1940	27,500
1941	33,000
1942	68,800
1943	60,500
1944	52,800
1945	33,000
1946	61,000 <sup>a</sup>

Source: *Foreign Crops and Markets*, Office of Foreign Agricultural Relations, U. S. Department of Commerce, Washington, November 5, 1945, p. 268; preliminary figure from *World Food Situation of 1946*, Office of Foreign Agricultural Relations, U. S. Department of Commerce, Washington, February 1946, p. 112.

a. Estimated.

TABLE 9  
PRODUCTION OF MISCELLANEOUS FRUITS AND NUTS,  
1933 AND 1940

Crop	1933 Production	1940	
		Production	Value
	(Thousands of Metric Tons)	(Thousands of Metric Tons)	(Thousands of Liras)
Apples	57.9	87.0	6,863
Walnuts	53.1	78.1	6,341
Pears	59.8	67.1	5,077
Oranges	210.2	243.8	4,625
Pistachio nuts	.5	8.1	2,886
Almonds	11.0	11.1	2,492
Plums	41.0	55.1	2,427
Cherries	27.2	32.2	2,244
Apricots	13.4	23.5	1,591
Quinces	22.1	25.1	1,588
Blackberries	53.5	61.9	1,505
Wild apricots	70.5	29.0	1,358
Chestnuts	11.5	20.7	1,185
Peaches	6.6	9.6	776
Tangerines	39.6	53.8	716
Lemons	14.6	36.5	590
Dogberries	1.4	11.8	390
Oleaster	.4	4.5	378
Corozo	11.4	7.6	98

Source: *International Review of Agriculture*, International Institute, Rome, May 1943.

TABLE 10  
NUMBERS OF LIVESTOCK, 1927 AND 1939-1945  
(In Thousands, Taxed Only)

	1927	1939	1940	1941	1942	1943	1944	1945
Cattle	5,214	7,503	7,724	7,935	7,588	7,171	7,295	7,541
Water buffaloes	558	711	739	738	690	650	655	669
Camels	66	104	100	99	97	90	92	91
Sheep	13,632	18,938	18,818	18,751	17,211	16,039	17,163	17,945
Merino sheep	—	20	39	54	72	86	103	116
Common goats	8,936	8,839	8,999	9,179	8,832	8,495	9,325	9,820
Angora goats	3,170	3,654	3,773	3,650	3,703	3,321	3,333	3,277
Horses	460	—	—	748	763	716	730	748
Mules	30	—	—	68	70	70	71	73
Asses	931	—	—	1,434	1,354	1,218	1,224	1,233
Pigs	—	—	—	1	1	1	1	2

Source: *Bulletin Trimestriel de la Banque Centrale de la République de Turquie*, No. 54-55 (1946), Ankara.

TABLE 11  
DAIRY PRODUCTS PRODUCTION, 1940  
(In Metric Tons)

Product	Amount
Cheese	11,150
Hard	2,756
Soft	8,267
Medium	99
Various other types	28
Powdered milk	55
Yoghurt	4,079
Butter	92,593

Source: Based on Kazim Koylu, "Situation of Agriculture in Turkey," *International Review of Agriculture*, International Institute, Rome, May 1943.

TABLE 12  
ANIMAL PRODUCTS PRODUCTION, 1940  
(In Millions of Liras)

Product	Value
Meat	118.5
Milk and dairy products	104.0
Wool	18.0
Goat hair	3.2
Mohair	7.8
Hides	6.5
Eggs	2.1
Honey	2.6
Wax	.5

Source: Based on Kazim Koylu, "Situation of Agriculture in Turkey," *International Review of Agriculture*, International Institute, Rome, May 1943.

TABLE 13  
CARGO TONNAGE HANDLED AT TURKISH PORTS, 1920 AND  
1931-1940  
(In Thousands of Metric Tons)

Year	Total	Istanbul and Other Marmara Ports	Mediterranean and Aegean Ports	Black Sea Ports
1920	26,445	14,519	4,561	7,365
1931	24,794	13,403	4,123	7,268
1932	20,715	10,690	3,386	6,639
1933	20,334	9,950	3,926	6,458
1934	22,369	8,429	4,260	9,680
1935	23,102	8,094	4,341	10,667
1936	23,615	7,819	4,659	11,137
1937	21,266	6,440	4,324	10,502
1938	23,807	8,414	4,780	10,613
1939	22,938	8,180	4,084	10,674
1940	18,284	6,554	2,175	9,555

Source: Special report of Minister of Communications to Twentieth Century Fund survey group, 1947.



TABLE 14  
COAL PRODUCTION AND COSTS, 1938-1946

Year	Run-of-the-Mine Production	Cost	Output Per Man
	<i>(Thousands of Metric Tons)</i>	<i>(Dollars Per Ton)</i>	<i>(Tons Per 8-Hr. Shift)</i>
1938	2,590	2.40	.48
1939	2,696	3.23	.47
1940	3,019	3.54	.47
1941	3,020	3.60	.47
1942	2,510	5.70	.38
1943	3,163	7.20	.43
1944	3,554	8.10	.48
1945	3,719	8.95	.46
1946	3,830	8.50	.51

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

TABLE 15  
PRODUCTION, DOMESTIC CONSUMPTION AND EXPORTS OF COAL,  
1935-1943

*(In Thousands of Metric Tons)*

Year	Run-of-Mine Production	Total Marketed	Domestic Shipments	Export Shipments
1935	2,340	1,686	936	750
1936	2,299	1,539	968	571
1937	2,307	1,505	1,178	327
1938	2,590	1,605	1,249	356
1939	2,696	1,724	1,521	202
1940	3,019	1,876	1,843	33
1941	3,020	1,788	1,776	12
1942	2,510	1,618	1,618	—
1943	3,163	2,071	2,071	—

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

TABLE 16  
LIGNITE PRODUCTION AND COSTS, 1938-1946

Year	Run-of-the-Mine Production	Cost
	<i>(Thousands of Metric Tons)</i>	<i>(Dollars Per Long Ton)</i>
1938	78	2.65
1939	96	2.65
1940	192	3.10
1941	199	3.28
1942	296	3.80
1943	461	6.10
1944	595	7.35
1945	589	7.50
1946	509	7.80

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

TABLE 17  
IRON ORE PRODUCTION AT DIVRIČI, 1938-1946  
*(In Thousands of Metric Tons)*

Year	Production
1938	72.9
1939	231.3
1940	130.3
1941	60.8
1942	19.8
1943	91.8
1944	90.4
1945	125.7
1946	112.2

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

TABLE 18  
 PRODUCTION OF COPPER, 1939-1946  
 (In Metric Tons)

Year	Blister	Refined
1939	6,736	—
1940	6,654	2,076
1941	9,517	910
1942	6,052	2,205
1943	7,515	2,200
1944	10,050	—
1945	7,649	1,895
1946	10,050	—

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

TABLE 19  
 CHROMIUM ORE PRODUCTION BY ETI BANK WORKS, 1936-1946  
 (In Thousands of Metric Tons)

Year	Production
1936	23
1937	49
1938	95
1939	105
1940	92
1941	64
1942	31
1943	60
1944	68
1945	70
1946	51

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

Note: Figures are for high-grade 40 per cent chrome ore.

TABLE 20  
SULPHUR PRODUCTION, 1936-1946  
(In Metric Tons)

Year	Production
1936	3,189
1937	3,383
1938	3,806
1939	815
1940	3,440
1941	1,951
1942	2,617
1943	3,079
1944	3,327
1945	3,779
1946	2,749

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

Note: Figures include both commercially pure and vineyard grade dusting sulphur.

TABLE 21  
PRODUCTION OF SELECTED MINERALS, 1936-1946  
(In Metric Tons)

Year	Manganese	Emery	Mercury <sup>a</sup>	Miscellaneous Minerals			
				Anti- mony <sup>b</sup>	Rock Asbestos	Magne- site	Meer- schaum
1936	4,600	12,983	815	c	c	c	c
1937	530	12,115	483	c	c	c	c
1938	2,180	8,452	597	c	c	c	c
1939	518	9,978	359	c	c	c	c
1940	560	9,012	493	c	c	c	c
1941	1,360	850	237	c	c	c	c
1942	3,313	10,710	176	c	c	c	c
1943	834	7,811	271	c	c	c	c
1944	1,970	100	143	c	c	c	c
1945	5,095	2,168	172	c	c	c	c
1946	1,793	10,552	75	123	55	100	625

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

a. Flasks.

b. Figure is for 50 per cent ore.

c. Not available.

TABLE 22  
CAPACITY AND 1946 PRODUCTION OF CHLORINE-ALKALI PLANT  
AT IZMIT  
(In Metric Tons)

Chemical	Annual Capacity	1946 Production
Liquid chlorine	1,900	56
Hydrochloric acid	1,000	182
Caustic soda	2,100	614
Calcium chloride	2,700	1,005

Source: Special report of Minister of National Economy to Twentieth Century Fund survey group, 1947.

TABLE 23  
MUNICIPAL ELECTRIC POWER GENERATION, 1923-1945

Year	Number of Stations	Installed Capacity  (Thousands of Kw.)	Number of Consumers <sup>a</sup>  (Thousands)
1923	2	30	—
1924	3	30	—
1925	5	31	—
1926	15	45	—
1927	26	46	—
1928	34	53	—
1929	44	59	—
1930	56	63	—
1931	67	85	—
1932	77	85	117
1933	83	85	148
1934	99	87	164
1935	107	88	194
1936	119	94	195
1937	135	95	206
1938	153	97	238
1939	173	99	260
1940	177	100	275
1941	176	100	294
1942	174	105	316
1943	181	105	333
1944	187	107	343
1945	190	107	355

Source: Special report of the Electrical Energy Institute (EIE) to Twentieth Century Fund survey group, 1947.

a. "Number of Consumers" is actually the number of houses supplied with electricity.

TABLE 24

GENERATION AND CONSUMPTION OF ELECTRICAL ENERGY, 1945  
(Thousands of Kilowatt-Hours)

Consumers	Generated in Municipal Plants	Generated in Industrial Plants	Total	Per Cent of Total Consumed
Total generated	254,388	273,420	527,808	—
Distribution losses	40,516	1,284	41,800	—
Total consumed	213,872	272,136	486,008	100.0
Domestic	51,196	1,613	52,809	10.9
Street lighting	10,753	337	11,090	2.3
Government buildings	12,062	377	12,439	2.5
Tramcars	16,294	514	16,802	3.5
Industries	123,567	269,297	392,862	80.8

Source: Special report of Electrical Energy Institute (EIE) to Twentieth Century Fund survey group, 1947.

TABLE 25

CONSUMPTION, BY VARIOUS INDUSTRIES, OF ELECTRICITY  
GENERATED IN INDUSTRIAL PLANTS, 1945<sup>a</sup>

Industry	Consumption	Per Cent of Industrially Generated Electricity
	(Thousands of Kw.b.)	
Total	273,420	100.0
Iron and steel	56,637	20.7
Coal and lignite mining	71,531	26.2
Various minerals	9,936	3.6
Textiles	72,912	26.7
Paper	28,350	10.3
Sugar	17,412	6.4
Chemicals	5,205	1.9
Cement works at Sivas	8,386	3.1
Other than industrial	3,051	1.1

Source: Special report of Electrical Energy Institute (EIE) to Twentieth Century Fund survey group, 1947.

a. Figures are not corrected for distribution losses and therefore do not accord exactly with those in Appendix Table 24.

TABLE 26  
SOURCE OF ENERGY USED IN ELECTRIC GENERATION, 1945

Source of Energy	Fuel Consumed	Output	
	(Metric Tons)	(Thousands of Kw.h.)	(Per Cent of Total)
Total	—	527,808	100.0
Coal	350,782	412,985	78.2
Lignite	108,997	54,120	10.3
Water power	—	23,762	4.5
Fuel oil	8,377	23,187	4.4
Wood and miscellaneous	—	13,754	2.6

Source: Special report of Electrical Energy Institute (EIE) to Twentieth Century Fund survey group, 1947.

TABLE 27  
ESTIMATED BUDGET EXPENDITURES FOR 1947

Item	Millions of Liras	Per Cent of Total
Grand total	1,136.2	—
Ordinary expenditures	1,021.2	100.0
Principal items		
Grand National Assembly	13.7	1.3
Presidency of Republic	1.1	0.1
Audit Office	2.0	0.2
Presidency of Council	3.3	0.3
Council of State	.9	0.1
Press Bureau	5.7	0.6
Statistical Bureau	.9	0.1
Meteorological Bureau	2.6	0.3
Public worship	2.7	0.3
Ministry of Justice	37.9	3.7
Survey Office	5.6	0.5
Ministry of National Defense	242.5	23.8
Department of Public Safety	30.8	3.0
Gendarmerie	37.2	3.6
Ministry of Interior	18.9	1.8
Ministry of Foreign Affairs	12.0	1.2
Ministry of Finance	114.3	11.2
Ministry of Education	100.7	9.9
Ministry of Public Works	84.5	8.3
Ministry of Economy	6.7	0.7
Ministry of Health and Social Welfare	42.0	4.1
Ministry of Customs and Monopolies	18.9	1.8
Ministry of Agriculture	29.2	2.9
Ministry of Communications	3.3	0.3
Ministry of Commerce	3.6	0.4
Ministry of Labor	2.1	0.2
Extraordinary expenditures		
National defense	115.0	—



TABLE 28  
PRINCIPAL SOURCES OF ESTIMATED REVENUE FOR 1947

Item	Millions of Liras	Per Cent of Total
Grand total of estimated revenue	1,021.2	100.0
Taxes on earned income and on capital	187.2	18.3
Transaction and consumption (Customs duties of 80 million liras are included)	351.9	34.5
Receipts from state monopolies (Tobacco, salt, spirits, explosives, etc.)	54.2	5.3
Revenue from government properties (Sale of state properties accounts for 5.4 million liras)	6.5	0.6
Government institutions (Mint, printing office, radio, lotteries, etc.)	9.5	0.9
Revenue from share in Mosul oil	2.2	0.2
Sundry revenues	50.1	4.9
Crisis and stabilization taxes	152.0	14.9
National defense taxes	92.5	9.1
Extraordinary receipts (Aviation duties, air force tax, special sugar tax, surcharge on certain customs duties)	115.0	11.3

TABLE 29

## TURKEY'S BALANCE OF MERCHANDISE TRADE, 1923-1946

Year	Imports		Exports		Excess of Imports (-) or Exports (+)
	(Kilograms)	(Liras)	(Kilograms)	(Liras)	(Liras)
1923	496,752,723	144,788,671	368,097,854	84,651,190	- 60,137,481
1924	702,612,482	193,611,048	633,979,040	158,867,958	- 34,743,090
1925	731,857,710	241,618,652	668,004,762	192,428,196	- 49,190,456
1926	627,912,466	234,699,735	770,887,426	186,422,755	- 48,276,980
1927	642,767,943	211,398,184	696,973,688	158,420,998	- 52,977,186
1928	720,493,733	223,531,775	626,054,534	173,537,489	- 49,994,286
1929	965,832,710	256,296,379	669,436,493	155,214,071	-101,082,308
1930	549,588,531	147,550,516	618,102,691	151,454,371	+ 3,903,855
1931	449,526,569	126,659,613	666,973,063	127,274,807	+ 615,194
1932	417,466,870	85,983,723	1,077,520,148	101,301,355	+ 15,317,632
1933	396,492,233	74,675,881	1,251,436,386	96,161,855	+ 21,485,974
1934	475,241,658	86,789,908	1,637,653,295	92,149,094	+ 5,359,186
1935	527,567,109	88,823,480	1,479,949,141	95,861,137	+ 7,037,657
1936	537,706,810	92,531,474	1,376,916,478	117,733,153	+ 25,201,679
1937	614,038,791	114,379,026	1,361,691,170	137,983,551	+ 23,604,525
1938	844,274,649	149,836,689	1,447,219,728	144,946,511	- 4,890,178
1939	734,932,778	118,248,934	1,134,891,999	127,388,997	+ 9,140,063
1940	356,895,568	68,922,708	658,819,850	111,446,486	+ 42,523,778
1941	310,104,505	74,815,069	428,899,017	123,080,868	+ 48,265,799
1942	344,039,910	147,713,229	355,025,624	165,034,422	+ 17,321,193
1943	391,168,087	203,045,170	333,450,935	257,151,661	+ 54,106,491
1944	331,758,254	164,944,863	345,634,573	232,530,350	+ 67,585,487
1945	324,510,600	126,166,357	309,537,557	218,928,951	+ 92,762,594
1946	402,733,595	223,931,229	905,190,481	432,094,468	+208,163,239

Source: Lira figures from *Statistical Abstract of Turkey, 1942-1946*, Bureau of Statistics, Ankara, 1947, p. 274; kilogram figures supplied to Twentieth Century Fund survey group by Ministry of Commerce, 1947.

TABLE 30

COMPOSITION OF TURKEY'S FOREIGN TRADE, 1930, 1932, 1936 AND 1938

Group of Products	Imports				Exports			
	1930	1932	1936	1938	1930	1932	1936	1938
<i>(Value in Millions of Liras)</i>								
Total	147.6	86.0	92.5	149.8	151.5	101.3	117.7	144.9
Manufactured articles	105.8	59.7	68.1	115.8	18.1	7.4	8.1	7.6
Raw or semimanufactured materials	22.3	18.0	19.2	26.4	81.1	44.8	62.4	73.0
Foodstuffs and live animals	19.5	8.3	5.2	7.6	52.3	49.1	47.2	64.3
<i>(Percentage Distribution)</i>								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Manufactured articles	71.6	69.6	73.7	77.2	11.9	7.4	6.9	5.2
Raw or semimanufactured materials	15.1	20.9	20.6	17.7	53.5	44.2	53.0	50.3
Foodstuffs and live animals	13.3	9.5	5.7	5.1	34.6	48.4	40.1	44.5

Source: Based on *International Trade Statistics*, League of Nations, Geneva, 1933, pp. 285 and 286; 1938, pp. 255 and 256.

TABLE 31

TURKEY'S IMPORTS AND EXPORTS OF IMPORTANT PRODUCTS, 1930, 1934 AND 1938

*(In Millions of Liras)*

Product	1930		1934		1938	
	Amount	Per Cent of Total	Amount	Per Cent of Total	Amount	Per Cent of Total
<i>(Imports)</i>						
Cotton manufactures	28.5	19.3	13.6	15.7	17.3	11.5
Iron and steel	20.2	13.6	12.6	14.6	28.2	18.8
Machinery	11.7	7.9	12.9	14.9	23.0	15.4
<i>(Exports)</i>						
Tobacco	43.0	28.4	12.7	13.8	39.3	27.1
Cotton	16.7	11.0	5.2	5.7	10.2	7.0
Hazelnuts	10.3	6.8	7.2	7.8	12.4	8.6
Raisins	10.0	6.6	7.3	7.9	14.3	9.9
Wool	4.6	3.0	8.0	8.6	7.1	4.9

Source: Based on *International Trade Statistics*, League of Nations, Geneva, 1933, pp. 285 and 286; 1936, pp. 278 and 279; 1938, pp. 255 and 256.

TABLE 32  
VALUE OF PRINCIPAL IMPORTS, 1941-1946  
(In Thousands of Liras)

Article	1941	1942	1943	1944	1945	1946	Percentage Share of 1946 Imports
Total	74,815	147,713	203,045	164,945	126,166	223,931	100.0
Capital goods							
Machinery	6,645	14,999	21,437	20,068	12,670	32,799	14.6
Precision instruments	1,701	4,376	5,469	3,672	1,950	6,667	3.0
Transport vehicles	2,305	8,074	5,205	5,282	4,309	9,682	4.3
Iron and accessories	7,250	20,403	37,732	23,071	9,955	27,343	12.2
Other metals	2,645	4,494	6,001	5,647	9,768	9,450	4.2
Bricks and cement	481	983	1,747	2,109	1,738	2,616	1.2
Consumer goods							
Clothing							
Cotton goods and thread	6,984	22,829	26,982	18,293	10,164	20,396	9.1
Wool	3,183	6,926	8,021	8,730	8,305	10,681	4.8
Hides and skins	2,759	6,211	6,027	9,077	6,977	16,824	7.5
Food							
Tea, coffee, cocoa	3,599	2,334	3,259	2,292	2,531	4,624	2.1
Sugar	1,440	1	1,790	1,130	—	—	0.0
Miscellaneous							
Fuel	8,979	6,103	9,387	15,208	9,910	14,553	6.5
Drugs and chemicals	11,132	16,834	23,614	16,973	16,299	21,645	9.7
Paper	5,517	6,402	13,165	9,044	8,176	7,429	3.3
Rubber and rubber manufactures	1,805	1,823	1,790	2,515	1,534	8,208	3.7
Glassware and bulbs	1,008	2,001	4,975	3,429	2,211	4,333	1.9
Other goods	7,382	22,920	26,444	18,405	19,669	26,681	11.9

Source: *Conjoncture*, Ankara, October-December 1946.

TABLE 33  
 VALUE OF PRINCIPAL EXPORTS, 1941-1946  
 (In Thousands of Liras)

Article	1941	1942	1943	1944	1945	1946	Percentage Share of 1946 Exports
Total	123,081	165,034	257,152	232,530	218,929	432,094	100.0
Tobacco	30,686	49,812	98,769	80,723	97,952	96,633	22.4
Cereals and legumes	10,163	6,704	2,646	1,096	10,102	75,431	17.5
Hazelnuts	9,591	12,833	21,002	16,068	18,655	40,760	9.4
Raisins	9,054	12,215	9,120	29,118	19,499	36,648	8.5
Live animals	847	3	129	70	930	34,101	7.9
Figs	5,484	5,162	3,210	5,630	6,582	17,747	4.1
Fish	3,276	4,797	10,611	10,648	5,013	7,751	1.8
Seeds	2,691	6,375	4,703	3,712	8,265	7,427	1.7
Oilcake	647	414	545	1,440	1,210	3,345	0.8
Wool and mohair wool	10,402	9,867	14,221	14,452	1,828	2,877	0.7
Eggs	360	1,506	360	—	4	1,344	0.3
Raw cotton	4,916	1,669	9,185	12,052	56	471	0.1
Olive oil	2,060	1,406	606	35	—	—	—
Other goods	32,904	52,271	82,045	57,486	48,833	107,559	24.8

Source: *Conjoncture*, Ankara, October-December 1946.

TABLE 34

TURKEY'S BALANCE OF MERCHANDISE TRADE, BY GROUPS OF COUNTRIES, 1928 AND 1938

Group of Countries	Share in Imports		Share in Exports		Turkish Balance of Trade	
	1928	1938	1928	1938	1928	1938
	(Per Cent)		(Per Cent)		(Millions of Liras)	
Total	100.0	100.0	100.0	100.0	- 50.0	- 4.89
United Kingdom, Germany, France, Italy	51.3	64.3	51.7	59.6	- 24.9	- 9.82
Other industrial European countries	18.9	9.4	9.7	10.2	- 25.1	+ 0.81
U.S.S.R.	5.4	3.9	3.7	3.5	- 5.6	- 0.75
Danube and Balkan countries	7.7	2.9	8.5	5.3	- 2.3	+ 3.23
United States	4.5	10.5	15.9	12.3	+ 17.4	+ 2.09
Rest of world	12.2	9.0	10.5	9.1	- 9.5	- 0.45

Source: Based on *International Trade Statistics*, League of Nations, Geneva, 1933, p. 284 and 1938, p. 254.

TABLE 35  
PERCENTAGE DISTRIBUTION OF TURKISH IMPORTS AND EXPORTS, BY VALUE, SELECTED COUNTRIES,  
1928, 1935, 1938, 1940-1946

Country	1928		1935		1938		1940		1941	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
Total Turkish trade										
Amount ( <i>in thousands of liras</i> )	223,532	173,537	88,823	95,861	149,837	144,947	68,923	111,446	74,815	123,081
Percentage total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States	4.5	15.9	7.0	10.1	10.5	12.3	10.8	14.1	5.4	13.5
United Kingdom	12.3	10.1	9.8	5.4	11.2	3.4	14.0	10.4	24.6	16.2
Switzerland	1.0	0.1	1.7	0.8	0.7	1.1	2.3	4.5	2.8	8.3
Palestine	"	"	"	"	0.4	0.2	0.0	0.8	2.2	1.1
Sweden	1.3	0.4	1.7	1.6	1.5	1.2	0.9	1.7	1.8	5.3
Italy	11.8	18.2	6.4	9.9	4.8	10.0	16.3	16.1	3.2	2.3
Greece	0.4	6.7	0.7	2.2	0.5	2.0	1.5	4.0	1.8	3.2
Egypt	1.1	4.5	0.8	2.0	0.7	0.9	1.5	1.4	4.5	3.0
France	13.0	10.6	4.7	3.2	1.3	3.3	2.8	5.9	0.5	0.8
Belgium	5.9	2.2	1.0	3.2	1.6	1.8	0.7	1.2	0.1	0.2
Czechoslovakia	6.1	4.2	4.3	3.2	3.9	3.4	3.7	4.2	2.6	5.2
Germany	14.2	12.8	40.0	40.9	47.0	42.9	11.7	8.7	11.9	21.8
U.S.S.R.	5.4	3.7	4.9	4.3	3.9	3.5	1.4	0.7	0.1	0.7
All others	23.0	10.6	17.0	13.2	12.0	14.0	32.4	26.3	38.5	18.4

TABLE 35—CONTINUED

Country	1942		1943		1944		1945		1946	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
Total Turkish trade										
Amount ( <i>in thousands of liras</i> )	147,713	165,034	203,045	257,152	164,945	232,530	126,166	218,929	223,931	432,094
Percentage total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States	4.9	17.0	2.4	20.5	4.6	23.9	18.0	43.8	31.3	20.3
United Kingdom	23.5	15.3	15.9	10.8	17.9	22.1	23.3	14.9	19.3	17.5
Switzerland	3.5	3.5	4.1	5.7	5.7	5.6	9.3	8.1	7.7	6.5
Palestine	1.8	1.5	2.3	3.0	3.6	3.0	6.9	4.4	4.0	9.0
Sweden	2.2	7.3	3.3	4.9	2.0	1.1	10.3	3.1	6.3	6.2
Italy	3.0	3.1	1.7	1.8	0.3	0.0	0.0	0.1	5.8	2.8
Greece	0.6	4.8	0.3	0.4	0.2	0.5	1.3	4.1	0.4	8.8
Egypt	1.6	5.3	0.8	10.4	0.9	9.1	1.4	11.7	1.7	7.0
France	0.1	0.3	0.0	0.7	0.0	0.0	0.0	1.4	0.8	4.2
Belgium	0.2	0.6	0.8	0.4	0.4	0.1	0.1	0.4	1.1	3.0
Czechoslovakia	2.6	5.6	3.9	5.4	4.3	1.9	0.3	0.3	1.9	1.1
Germany	27.8	24.7	37.7	23.8	30.5	22.7	0.6	0.0	0.0	0.0
U.S.S.R.	0.6	0.1	0.0	0.0	0.0	1.2	0.1	0.0	0.0	0.0
All others	27.6	10.9	26.8	12.2	29.6	8.8	28.4	7.7	19.7	13.6

Source: 1928, 1935 and 1938 data from *International Trade Statistics*, League of Nations, Geneva, 1933, p. 284 and 1938, p. 254; 1940-1946 data supplied to Twentieth Century Fund survey group by Ministry of Commerce, 1947.  
 a. Not separately listed. Syria and Palestine together are reported to have supplied 1.3 per cent of Turkey's imports in 1928 and taken 3.8 per cent of her exports; in 1935, 0.6 and 3.6 per cent, respectively. *Conjoncture*, Ministry of Commerce, Ankara, May 1940, p. 54.



TABLE 36  
 TURKEY'S BALANCE OF MERCHANDISE TRADE WITH SELECTED COUNTRIES, 1938-1946  
*(In Thousands of Liras)*

Country	1938	1939	1940	1941	1942	1943	1944	1945	1946
Total	- 4,890	+ 9,140	+ 42,524	+ 48,266	+ 17,321	+ 54,106	+ 67,585	+ 92,763	+ 208,163
United States	+ 2,089	+ 6,530	+ 8,292	+ 12,575	+ 20,951	+ 47,876	+ 47,983	+ 73,769	+ 17,599
United Kingdom	+ 11,852	- 86	+ 1,886	+ 1,588	- 9,424	- 4,490	+ 21,881	+ 3,185	+ 32,389
Switzerland	+ 618	+ 1,398	+ 3,501	+ 8,059	+ 615	+ 6,377	+ 3,718	+ 5,825	+ 10,845
Palestine	- 346	+ 194	+ 885	- 232	- 182	+ 2,920	+ 884	+ 802	+ 29,779
Sweden	- 524	+ 371	+ 1,295	+ 5,124	+ 8,808	+ 5,798	- 873	- 6,258	+ 12,585
Italy	+ 7,443	+ 2,731	+ 6,727	+ 4,688	+ 641	+ 1,280	- 392	+ 101	- 871
Greece	+ 2,098	+ 503	+ 3,395	+ 2,526	+ 7,013	+ 399	+ 814	+ 7,252	+ 36,943
Egypt	+ 226	+ 987	+ 469	+ 320	+ 6,450	+ 25,193	+ 19,663	+ 23,713	+ 26,418
France	+ 2,786	+ 3,395	+ 4,688	+ 690	+ 398	+ 1,748	+ 11	+ 2,980	+ 16,318
Belgium	+ 173	+ 784	+ 846	+ 256	+ 744	- 628	- 338	+ 822	+ 10,456
Czechoslovakia	- 778	+ 4,276	+ 2,119	+ 4,418	+ 5,395	+ 5,883	- 2,656	+ 179	+ 536
Germany	- 8,201	- 12,638	+ 1,604	+ 17,930	- 265	- 15,530	+ 2,650	- 776	- 65
U.S.S.R.	- 751	+ 526	- 200	+ 713	- 821	- 35	+ 2,769	- 104	+ 80
All others	+ 2,129	+ 169	+ 7,017	- 6,169	- 23,002	- 22,685	- 28,529	- 18,727	+ 15,151

Source: Based on *Statistical Abstract of Turkey, 1942-1946*, Bureau of Statistics, Ankara, 1947, pp. 283-91, and on data supplied to Twentieth Century Fund survey group by Ministry of Commerce, 1947.

## *Appendix 2*

### TURKISH LAWS AFFECTING FOREIGNERS

#### *Insurance Companies*

Foremost among the laws to interest and affect foreign businessmen is the law concerning foreign commercial and insurance companies. According to this law, when a foreign company with a head office in a foreign country desires to establish a branch in Turkey, it must notify the Ministry of Commerce of the title or name of the company, the place of its head office, the nationality of the company and its capital assets. It must declare its readiness to operate (within the boundaries of Turkey) in conformity with Turkish laws. The company has also to present an affidavit, sworn and signed in the presence of the public notary of the district in which its head office is located, testifying that the company was formed in conformity with the laws in existence in that country and that it is in a state of continuance. This document must be duly attested by a Turkish Consulate or Embassy, and a copy of the charter of the company, endorsed and attested in the same fashion, has also to be submitted. The company further has to declare that it will limit its functions to those embodied in its charter. It also has to appoint an authorized representative to act as the plaintiff on behalf of the company or to receive claims from third parties directed against the company. This authorization must be a full power of attorney, to be given by a public notary in the country wherein the head office of the company is located, and must be duly attested by the Turkish Consulate and Embassy in that country.

#### *Entry to Trades and Occupations*

Another law which affects and concerns foreigners is the law relative to trades and occupations reserved only to Turkish citizens. According to this law, foreigners are prohibited from carrying out the trades of musician, photographer, barber, printer, commissionaire, street vendor; they may not work in the clothing, bathing or shoe-making industry; they are not permitted to act as brokers, may not sell articles coming under a state monopoly or act as guides to tourists. Furthermore they are also prohibited from working in the building industry, the woodworking and steel industries; they are not allowed to work in public utility companies, producing elec-

tricity, distributing water, heating, etc.; they may not work as temporary or permanent workers in transportation companies or in companies serving communication purposes; they may not act as porters on land, as drivers of motor vehicles or their assistants; they are prohibited from undertaking any form of ordinary labor work; they may not become concierges or janitors in apartment or office buildings or in hotels and similar establishments and may not become watchmen, bartenders, waiters, headwaiters, etc., in casinos, coffeehouses, bars, dance halls, etc.; they may not become performers or singers in night clubs or similar establishments; they are not allowed to practice as veterinaries or chemists, or to become airplane pilots or mechanics; they are not allowed to work in organizations belonging to the state or to municipalities. Only by special decree of the Council of Ministers may foreigners be employed in government-owned organizations or as airplane pilots and airplane engineers and experts.

### *Currency and Income*

Apart from these laws, the law in connection with the protection of Turkish currency and the recent edict of the government concerning certain applications of this law also affect foreigners. Thus private individuals residing in Turkey or companies established in this country are not at liberty to dispose of any free exchange acquired within Turkey; these have to be sold to Turkish banks. The taking out of free exchange from the country is subject to a permit from the Ministry of Finance. Foreign persons or companies disposing of free exchange in other countries and established in Turkey also have to obtain a permit from the same Ministry before they effect payments of this nature. All checks, bonds, policies, commission accounts, etc., representing free exchange are only transferable to Turkish banks. To transfer these to other countries, persons or organizations, the permission of the Ministry of Finance is required. Foreigners entering the country are called upon at the first Turkish customs office to declare all the foreign exchange and valuable articles, such as jewelry, in their possession and to have these duly registered in their passports. All articles and free exchange thus registered in the passport can be freely taken out of the country at the time of departure without any further formalities or restrictions. Foreigners established in Turkey before September 28, 1939 can take their valuable articles with them at the time of leaving the country provided they obtain beforehand the necessary permit from the Ministry of Finance. Foreign transportation companies operating to and from Turkey are obliged to sell to the Turkish banks that

portion of the traveling fees pertaining to the Turkish section of their itinerary. Traveling fees collected from such companies in Turkish currency for the portion of the itinerary outside of Turkey can be, by permission of the Ministry of Finance, compensated with free exchange owable by these companies for the Turkish portion of the itinerary and accumulated by the sale of traveling tickets in foreign countries.

Companies and contracting firms established abroad but wishing to conduct business in Turkey are obliged to bring the necessary capital and operating funds to Turkey in the form of free exchange.

Instead of free exchange, gold may be imported by special permission to be obtained from the Ministry of Finance. However, it is compulsory that such gold should be sold to the Turkish Central Bank within the period allowed for the sale of free exchange.

The income derived from property in Turkey of persons or organizations residing or established abroad, money receivable from the sale of such property, the income received from capital invested in Turkey by these persons or organizations and all money due to them in Turkish currency, as well as all liquid assets they possess, their Turkish or foreign negotiable instruments, are all frozen in Turkey. All money thus received by the authorized delegates of these persons or companies in Turkish currency and negotiable instruments coming into the possession of these delegates have to be deposited within one month of the receipt of such money with the Central Bank of Turkey and negotiable instruments have to be deposited with any Turkish bank. All assets and money thus frozen can be taken out of the country from time to time with the permission of the Ministry of Finance by exporting certain products from Turkey to be designated jointly by the Ministries of Commerce and Finance. The method of using such frozen assets within Turkey is also determined by the Ministry of Finance.

Industrial, agricultural, public works and transportation enterprises benefiting the country, and commercial organizations whose operations tend to increase Turkish exports, can apply for a guarantee from the Ministry of Finance to the effect that they will be given authority to transfer freely to other countries the income derived from the capital, machinery and foreign exchange imported into Turkey, as well as the total of their assets or capital in case they chose to do so. The unused portion of free exchange imported into the country on their persons by foreigners or Turks residing abroad and traveling to Turkey duly registered in their passports at the first Turkish customs office on their arrival may be taken out at the time of departure without any further formalities.

### Appendix 3

#### FIVE-YEAR PLAN PROPOSED BY TURKEY IN 1946-1947

*At the time this survey was being made, the Turkish government was preparing a new five-year plan, which presumably was to be used as the basis for such foreign loans as might be necessary to its fulfillment. In writing its report, the Twentieth Century Fund survey group drew upon such advance information about the new five-year plan as it was able to obtain. Later, officials of the Turkish government supplied to members of the survey group the following summary, prepared in connection with an application for an American loan. Obviously directed at an American audience, and still undergoing revision as to detail, the new Turkish five-year plan as quoted here nevertheless gives a reasonably close idea of what is contemplated.*

#### THE NEW FIVE-YEAR PLAN

The Turkish government has decided to put into application a thorough and practical plan of industrialization, with the purpose of raising the standard of living of the country and obtaining a place of importance in international trade.

The projects envisaged by the Turkish government fall under six main headings:

- A. Industry and mining
- B. Means of transport
- C. Agriculture
- D. Health and hygiene
- E. Increasing the efficiency of the Customs and monopolies
- F. Miscellaneous

#### *A. Industry and mining*

It is a matter of general knowledge that ever since 1923 a movement toward industrialization has been afoot in Turkey. Since 1923 Turkey has found it possible to set up a modest industry, relying solely on national capital. Turkey is now anxious to expand its industry to a degree where it will be capable of supplying the larger part of the needs of the country. The plan of industrialization and

mining now under consideration consists of the following six branches:

1. Textiles
2. Building materials
3. Chemicals
4. Metallurgy, machinery, machine tools and other metal goods
5. Mining
6. Power plants

1. *Textile industry*

a. *Cotton goods*

There are at present in Turkey industrial units capable of providing 25,000 tons of cotton yarn and cotton goods a year. The country needs 65,000 tons. In order to meet part of the needs which cannot be met by the existing industry, it is proposed to establish new industrial units capable of producing 12,500 tons a year. These will consist of 125,000 spindles and 2,000 looms. They are expected to spin 12,500 tons of cotton yarn and to produce 60,500,000 meters of cotton cloths and 40 million meters of cotton prints. The cost and transportation of the goods which are to be purchased in the United States in order to establish these factories, and the salaries and expenses of American experts to be employed, is estimated at \$17,380,000. This will effect a reduction of \$13,880,000 in the Turkish balance of payment liabilities.

b. *Woolens*

Turkey produces yearly 7,500 tons of woolen yarn, whereas the country is in need of 22,000 tons per year. Turkey intends to set up new industrial units capable of producing 2,500 tons a year, in order to meet a part of the existing demand. This will necessitate the supply of 25,000 spindles and 200 looms, which will produce 2,500 tons of yarn and 2,200,000 meters of woolen cloths per year. It is estimated that the cost of the equipment to be imported from the United States for this purpose, including transportation, and the salaries of experts [will amount to] \$6,333,000. This will affect the Turkish balance of payments favorably to the extent of \$12,220,000.

c. *Hemp industry*

Turkey is producing 2,500 tons of hemp per year, whereas there is an internal demand for 7,500 tons. New factories are envisaged in order to meet a further 1,600 tons of the need.

These will be capable of producing 1,600 tons of hemp yarn, 1,200 tons of hemp textiles and 400 tons of string. The cost of the materials necessary for the new installations and which will be imported from the United States is estimated at \$350,000, which will effect a reduction of \$270,000 on the liability side of our balance of payments.

d. *Artificial wool industry*

The country is in need of 1,300 tons of artificial wool per year, and no industrial enterprises are at present in existence in order to meet this demand. Turkey intends to set up installations capable of meeting 500 tons of the amount. The estimated cost of the equipment to be purchased in the United States for this purpose, including freight and the salaries of experts, will be \$700,000, and this will cause a saving of \$830,000 on the Turkish foreign exchange payments.

To sum up, \$25,360,000 are needed for the realization of the textiles aspect of our plan of industrialization. When this projected industry is in full swing, it is anticipated that a yearly saving of \$27,200,000 will thereby be effected on the Turkish balance of payments.

2. *Building materials industry*

a. *Cement plants*

The yearly demand for cement is 600,000 tons, whereas the existing industry only supplies 360,000 tons. The proposed new plants are expected to produce 120,000 tons of cement and 100,000 tons of slag per year. An estimated sum of \$3,611,000 will be required for the importation of the necessary equipment from the United States, including freight and salaries of experts. This is expected to effect a saving of \$2,500,000 in the Turkish balance of payments.

b. *Window glass factories*

The yearly need of the country for window glass is at the rate of 15,000 tons, all of which has had to be imported on account of a lack of domestic industry. We are therefore anxious to set up plants capable of meeting 10,000 tons of window glass and wire glass. This will require an estimated amount of \$1,388,000 for the importation of necessary plants and equipment from the United States, including freight and experts' salaries, and eventually effect a saving of \$444,000 in the Turkish balance of trade.

*c. Tile plants*

The country needs an annual supply of 10,000 tons of various tile goods as there are not plants in existence in Turkey to meet this demand. It is proposed to set up an industry capable of producing 5,000 tons of tile goods at an estimated expense of \$833,000 [and to import] the necessary equipment from the United States. [This will effect] a reduction of \$388,000 on the debit side of the Turkish balance of payments.

*d. Asbestos cement*

The yearly domestic need for this type of material is 15,000 tons, and this material is not at present produced in Turkey. It is proposed to establish an industry capable of turning out 15,000 tons of plain and corrugated sheets of this material. The cost of equipment to be imported from the United States is estimated at \$555,000, and the saving that the project will effect on the Turkish trade balance at \$833,000.

*e. Plants to exploit wood waste products*

Our yearly need for various construction and installation materials made out of the waste products of wood is 3,000 tons. We have at present no means of supplying this need. We would therefore require an estimated amount of \$1,111,000 to cover the cost of materials to be imported from the United States for the purpose of setting up plants capable of producing the whole amount.

In conclusion, a sum of \$7,498,000 would be required for the application of our projects connected with building materials, the result of which would be to effect a saving of \$4,165,000 on the foreign exchange payments.

*3. Chemical industries**a. Paper and cardboard mills*

The country's yearly need for paper and similar materials is at the rate of 60,000 tons. 24,000 tons are being produced yearly in Turkey. It has been decided to establish new industries capable of producing 3,300 tons of thin wrapping paper and 16,500 tons of cardboard annually. An estimated amount of \$3,777,000 will be required to cover the cost of purchases to be made in the United States for this purpose, including freight and experts' salaries. These installations are expected to yield a saving of \$4 million of foreign exchange.



b. *Wood pulp plants*

We are at present compelled to import the whole amount of wood pulp required by our paper mills. Our yearly demand is for 12,000 tons, and we are anxious to provide plants capable of supplying the whole of this demand. \$833,000 are required for the purchase of necessary materials in the United States, as well as to cover the cost of freight and experts' salaries. This will effect a saving of \$833,000 of foreign exchange.

c. *Nitrate plants*

Turkey is in need of 8,000 tons of nitric acid, 2,000 tons of ammonium nitrate and 60,000 tons of nitrate ash fertilizer. Of these amounts, only 4,000 tons of nitrate ash is at present being produced in the country. The proposed new industries are expected to yield 6,000 tons of nitric acid, 2,000 tons of ammonium nitrate and 28,000 tons of nitrate ash. The cost of importing the necessary equipment from the United States, including freight and the salaries of experts, is estimated at \$6,111,000. The savings to be effected on our foreign exchange by the domestic production of the above-mentioned chemicals will be: nitric acid, \$833,000; ammonium nitrate, \$277,000; nitrate ash, \$1,888,000.

d. *Sodium plants*

The yearly requirement of Turkey is 20,000 tons. This chemical is not produced at all in the country, and it is proposed to set up an industry capable of supplying the entire need. \$2,500,000 will be required for the importation of the plant from the United States, and the project, when completed, will reduce our foreign exchange payments by \$555,000.

e. *Copper sulphate plants*

The yearly need for copper sulphate is 5,000 tons, and it is proposed to set up an industry capable of producing 3,000 tons of this amount. The cost of purchasing the necessary equipment in the United States is estimated at \$888,000, and the project is expected to yield a foreign exchange saving of \$228,000 a year.

f. *Carbon sulphide plants*

The yearly need for this chemical is 800 tons, whereas it is not produced at all in the country. The estimated cost of purchasing in the United States the necessary equipment for setting up plants capable of producing 600 tons a year is estimated at

\$200,000, and the project, when completed, is expected to yield a saving of \$55,000 a year on our foreign exchange balance.

*g. Glycerine plants*

The yearly need for glycerine is 1,000 tons, and it is contemplated to provide plants capable of producing 800 tons annually. The cost of buying the plant in the United States is estimated at \$333,000 and that figure will represent the amount of saving to be eventually effected in our foreign exchange.

*h. Wood distilleries*

There are at present no wood distilleries in Turkey, whereas there is an annual demand for 1,000 tons of methyl alcohol, 150 tons of acetone and 2,000 tons of acetic acid. The projected industries will produce 300 tons of methyl alcohol, 60 tons of acetone and 1,200 tons of acetic acid. The cost of purchasing the necessary equipment from the United States will be \$1,944,000, and the foreign exchange saving to be effected by the domestic production of these chemicals will be: \$166,000 for methyl alcohol; \$57,000 for acetone; and \$1,000,000 for acetic acid.

*i. Organic chemicals*

\$4,444,000 are needed for the purchase in the United States of equipment necessary to set up plants to produce the organic dyes, medical and chemical supplies for which there is a demand in the country. The project will yield a saving of \$2,222,000 a year on our foreign exchange.

*j. Plastic goods*

Turkey is in need of 5,000 tons of plastic goods yearly and it is proposed to provide the means of supplying the entire demand by domestic industries. \$2,888,000 are required for this purpose, and the project, when completed, is expected to yield a saving of \$555,000 on Turkey's foreign exchange.

*k. Porcelain plants*

The annual need of the country for various porcelain objects and materials is 3,000 tons. It is planned to supply the entire need by domestic industries. The purchase of the necessary equipment from the United States for this purpose will require \$1,111,000, and the saving in Turkey's balance of trade will be \$833,000.

### 1. *Sugar and alcohol*

Turkey consumes 120,000 tons of sugar each year. As the existing beet sugar industry provides merely 70,000 tons, it is now proposed to set up cane sugar industries to provide the balance of 50,000 tons. This will require a sum of \$11,333,000 for the purchase of the plant in America, and will eventually reduce Turkey's foreign exchange liabilities by \$5,333,000.

The annual consumption of alcohol is 5,000 tons, whereas only 2,500 tons are yearly produced in Turkey. It is now proposed to expand this industry so as to provide an additional 7,500 tons annually. This will necessitate an expenditure of \$2,222,000 for the purchase of the new plants in America. This will yield a surplus enabling us to export 2,500-5,000 tons of alcohol annually, thus creating a favorable exchange balance of \$500,000 a year.

To sum up, the expansion of the country's chemicals industry will require \$38,634,000, and when completed will effect a saving of \$17,228,000.

### 4. *Machinery, metal goods and equipment*

#### a. *Iron and steel heavy industries*

##### (1) *Small-diameter reinforcing steel and wire-rolling mills*

The annual need for this item is 50,000 tons, of which 10,000 tons are at present being produced in the country. For establishing new rolling mills capable of supplying a further amount of 20,000 yearly, \$1,666,000 will be required, and a foreign exchange saving of \$1,666,000 will thereby be effected.

##### (2) *Sheet iron and tin plants*

The country's annual need for tin products is 20,000 tons and for sheet iron 30,000 tons. Tin is supplied entirely by imports and the amount of sheet iron produced at home is only 5,000 tons. New industries are expected to yield 10,000 tons of tin and 20,000 tons of sheet iron per year. The cost of purchasing the necessary plants in the United States is estimated at \$2,222,000. As a result of the new industries, our foreign exchange liabilities will be reduced by \$1,111,000 for tin and \$1,666,000 for sheet iron.

##### (3) *Seamless steel pipe plants*

The annual requirement of Turkey for seamless steel pipes is 15,000 tons and . . . new plants are envisaged to supply the entire amount of the country's need. \$2,222,000 is

estimated to cover the cost of the importation of the plants from the United States, including, as in each case, freight and the salaries of experts. This is anticipated to cause a foreign exchange saving of \$2,222,000 per year.

(4) *Special steel plants*

The country is in need of 25,000 tons of rolling mill products and steel castings annually. As these items are not at present produced at home, it is proposed to build plants and rolling mills capable of turning out 10,000 tons a year, at an expense of \$4,444,000 for the purchase of machinery and equipment in the United States. This will effect a saving of \$2,222,000 annually in foreign exchange payments.

(5) *Supplementary electrical and mechanical installations*

The setting up of this type of installation, capable of producing 2,000 tons per year, is envisaged. This is expected to cost \$2,500,000 and to effect a yearly saving of \$555,000 on foreign exchange.

b. *General machinery plants*

The yearly need for various types of machinery, machine tools and spare parts is 40,000 tons, whereas only 5,000 tons of this amount is produced at home. It has been decided to install plants capable of turning out 10,000 a year. This will require a sum of \$8,888,000 for the purchase of the necessary equipment in the United States, and will create a saving of \$2,777,000 yearly in foreign exchange.

c. *Copper industry*

The country needs 10,000 tons of electrolytic copper, 5,000 tons of copper alloys, 15,000 tons of rolling mill products and 5,000 tons of copper cables each year, whereas at present only 100 tons of copper cable is being produced at home. It is hoped to be able to produce 10,000 tons of electrolytic copper, 5,000 tons of copper alloys, 10,000 tons of rolling mill products and an additional 2,000 tons of copper cable each year. The cost of the plants to be purchased in the United States is estimated at \$3,333,000. The project will bring about a saving of \$3,333,000 yearly in Turkey's foreign exchange payments.

d. *Electrical equipment and instruments*

Turkey requires 7,500 tons of various kinds of electrical machinery, equipment and tools. The proposed new industry will produce 2,500 tons of this amount. The cost of the purchase of the necessary plants in the United States is estimated at

\$4,166,000, and the project will yield a foreign exchange saving of \$2,222,000.

To sum up, the cost of setting up new industries in machinery, metal goods and equipment is estimated at \$29,441,000, and the realization of this project will effect a saving of \$17,774,000 annually on the country's foreign exchange payments.

## 5. Mining

### a. Coal mines

The annual need of the country for coal is 3 million tons and of this two and one half millions are supplied by her own mines. It is proposed to expand the country's coal mining to a point where one million tons more can be produced each year. This could be made possible by the purchase of necessary equipment in the United States at an estimated cost of \$30,666,000. This increase in production would only constitute the first stage, and the country's aim is to raise production to five million tons by the year 1960. When annual production reaches 3.5 million tons, it will be possible to export 500,000 tons annually, thus creating a favorable balance of trade to the extent of \$7 million.

### b. Lignite mines

The annual consumption of this mineral is 1,800,000 tons, of which only 700,000 are mined in Turkey. It is proposed to raise the amount produced so as to meet the entire demand. The equipment to be purchased in the United States in order to make possible the mining of the additional 1,100,000 tons is estimated at \$6,888,000.

### c. Chromium mines

Turkey produces 150,000 tons of chromium a year. It is proposed to provide installations which will make it possible to raise this amount to 185,000 tons. This will require a sum of \$388,000 for the purchase of necessary equipment in the United States. The increase of our chromium output by 35,000 tons will yield a foreign exchange asset of \$2 million.

### d. Copper mines

The annual consumption of blister and refined copper is 10,000 tons, of which 9,000 tons are at present produced in the country. It is proposed to provide installations capable of turning out 15,500 tons a year, which will require \$1,777,000 in foreign exchange. 14,500 tons of copper produced by the proposed industries will be exported, yielding a saving of \$7 million in our balance of trade.

*e. Lead mines*

The yearly need of Turkey for pure lead is 3,000 tons. New industries will be set up to produce 2,000 tons. The cost of purchasing the necessary equipment in the United States is estimated at \$1,111,000, and the saving thus to be effected on the country's foreign exchange will be \$555,000.

*f. Sulphur mines*

The annual consumption of sulphur is 7,500 tons, whereas only 2,000 tons of concentrated sulphur and 500 tons of pure sulphur are now being produced in the country. This project calls for the establishment of an industry capable of producing 2,500 tons of concentrated sulphur and 2,500 tons of pure sulphur per year. The amount of foreign exchange required for the purchase of the necessary equipment in the United States is \$1,388,000, and the eventual saving on the country's foreign exchange liability will be \$833,000.

The raising of the mining capacity of the country to a suitable level will therefore require a total of \$42,218,000, and the eventual saving on the country's foreign exchange balance will be \$17,388,000.

*6. Power plants*

a. The completion of the power plant at Çatalağzi includes the building of aerial lines and stations, so as to raise the capacity of the plant to 1,000 kilowatts of power and 1,000,000 kilowatt-hours of work, [and] will require \$3.5 million for the purchase of the necessary equipment in the United States, including freight, experts' salaries, etc.

b. The power plant at Tunçbilek, complete with aerial lines and stations, will have a capacity of 1,000 kilowatts of power and one million kilowatt-hours of work. For importing the necessary equipment from the United States, \$15,555,000 will be needed.

c. Power plants that have not been included in industrial projects have to be set up to form a part of those projects. These will have a capacity of 1,000 kilowatts of power and one million kilowatt-hours of work.

Thus, \$24,610,000 are required for the purchase of machinery, equipment, freight, etc., for the completion of existing power plants and the setting up of new ones.

The amounts of foreign exchange required for the realization of the industrial and mining projects outlined above, as well as the saving on foreign exchange which will eventually be effected in each case, may be summed up as follows:

<i>Industry</i>	<i>Needed Foreign Exchange</i>	<i>Savings in Foreign Exchange Through Cut in Imports</i>
1. Textile industry	\$25,360,000	\$27,200,000
2. Construction materials industry	7,498,000	4,165,000
3. Chemicals industry	38,634,000	17,220,000
4. Machines, metallic objects and materials industry	29,441,000	17,774,000
5. Mines	42,218,000	1,388,000
6. Power plants	24,610,000	—
	<hr/> \$167,761,000	<hr/> \$67,747,000

Thus the total amount of foreign exchange needed is \$167,761,000 and the favorable effect that these projects will have on the country's foreign trade will be \$78,247,000.

### *B. Transportation plan*

It is unnecessary to explain the effect that the development of means of transportation and communication will have on the economic development of the country.

The Republic of Turkey, when proclaimed in 1923, found a railroad network of 3,400 km. These railroads were in need of repairs. The government of the Republic had to concentrate all her efforts on this field. The existing lines were repaired with the funds taken from the normal revenue of the government and raised from the public on long-term loans. While the old lines were repaired construction of the new ones began. Due to this work Turkey has today a network in operation of 7,481 kilometers.

The second world war offered various difficulties for our railroad policy. There was a scarcity of materials and a shortage of manpower due to mobilization. In spite of these, the construction work was not stopped. The lines of Diyarbakir-Cizre and Elâziğ-Van are under construction. Four fifths of the Diyarbakir-Cizre line, which was constructed during the war, is open to passenger and freight service.

The tonnage of merchant marine inherited by the Republic was

about thirty thousand tons. During the same period this tonnage was increased tenfold. The war, due to well-known causes, stopped all development in this field.

During the war our transportation system felt especially the shortage of rolling stock, spare parts and repairing materials. Turkey having been cut off from the world markets for six years, today the whole network of railroads needs repairing and reconditioning. The merchant marine is in the same condition.

The repairing and reconditioning of the existing railroads and merchant marine will not cover all of the transportation needs of Turkey. Many parts of Turkey do not benefit from rail transportation. The merchant marine is insufficient. The airlines are in their infancy, and require considerable effort and expenditure to assure their growth.

The inconveniences caused by the lack of an adequate transportation system have been especially apparent during the war. Difficulties in transportation caused many undue rises in prices and especially a marked difference in prices is seen between different markets.

In order to eliminate these difficulties and insure the country a healthy economic development, the following plan has been prepared.

This plan can be divided into five parts:

1. The purchase of materials and equipment necessary for the operation, repair and upkeep of transportation lines and the establishment of the industries required for the operation of the system
2. Construction of railroads, highways and ports
3. Construction of airports and the purchase of materials and equipment necessary for the airlines
4. Hydroelectric installations
5. Improvement of the communication system

Further explanations for these plans are given below.

1. *The purchase of materials and equipment necessary for the operation, repair and upkeep of the lines and the establishment of industries necessary for the operation of the lines*

a. *Railroad equipment and materials*

The requirements of Turkey . . . can be divided into the following parts:

(1) *Locomotives, cars and motor vehicles*

Turkey, to meet her requirements in this field, has decided to import from the United States 275 locomotives, 3,270



passenger and freight cars, 142 mail cars, 20 Diesel engine trains, 600 motor buses and trucks, etc. The approximate value of this equipment is \$42,581,400.

(2) *Repair shops*

(a) *Locomotive repair shop*

A repair shop, capable of performing 360 repairs a year, will be established. The equipment and material to be imported from the United States for this repair shop is valued at approximately \$4,440,000.

(b) *Car repair shop*

A repair shop, capable of repairing 1,200 passenger and 3,000 freight cars a year, will be established. The equipment and material to be imported from the United States for this repair shop is valued at approximately \$2,220,000.

(c) *Motor bus and truck repair shop*

A repair shop, capable of repairing and overhauling 600 motor vehicles a year, will be established. The equipment and material to be imported from the United States for this workshop have an approximate value of \$2,220,000.

(d) *Repair shop for Diesel engine trains, tenders, etc.*

A repair shop capable of repairing 24 Diesel engine trains, 30 motor rail cars and 10 tenders a year will be established. The material to be purchased from the United States has an approximate value of \$2,220,000.

(e) *Garages for buses and trucks*

Garages for buses and trucks will be constructed. Each garage will hold 30 vehicles and will be equipped with facilities for the upkeep of these vehicles. Materials and equipment to be imported from the United States for these garages is valued at \$277,000.

(f) *Locomotive and car sheds*

A credit of \$3,300,000 is needed in order to import from the U. S. the necessary materials and equipment for the construction of these sheds.

(3) *Materials needed for the repairing of the existing lines*

Rails, switches, sleepers, etc., for 300 km., valued at \$5 million, will be purchased from the United States.

(4) *Railroad equipment factory*

In order to produce a part of the material and equipment required for the operations of the lines, a plant will be established in Turkey. This plant will have a yearly production capacity of 125 locomotives, 100 passenger cars, 100 freight cars, 25 rollers (road) and 25 locomobiles. The machinery, equipment and material required for the construction of this plant will be imported from the United States. A credit of \$13,888,000 is required for these imports.

(5) *Communication and security installations*

Foreign exchange of about \$4,440,000 is needed to import from the United States the required communication and security installations.

To sum up, a sum of \$80,578,400 is needed to purchase the machinery, equipment, material and installations necessary for the operation and upkeep of the railroads.

b. *Equipment necessary for the shipping lines*

(1) *Ships*

15 passenger ships, 17 city lines passenger ships, 12 freighters and 5 ships of various types in different dimensions valued at \$41,306,000 will be purchased from the United States.

(2) *Docks and yards*

One floating dock, one dock and commercial yards will be established. Materials and equipment for these docks and yards valued at \$9,378,000 will be imported from the United States.

(3) *Other requirements*

Various repair shop equipment and materials and cranes for ports will be imported from the United States. The approximate value of these goods is \$6,971,000.

The requirements of the Administration of the Turkish Shipping Lines and Ports reaches a total of \$57,655,000.

Therefore the credit needed for the first part of the transportation plan amounts to \$138,233,400.

2. *Construction of railroads, highways and ports*

a. *Railroad construction*

Turkey has a five-year railroad construction plan. According to this plan 1,000 kilometers of railroads will be con-

structed in five years, at a yearly average of 200 km. Materials and equipment necessary for this construction . . . consist of rails and accessories, narrow-gauge rails, locomotives, passenger and freight cars to be used during the construction, excavators, generators and compressors. All these materials and equipment will be imported from the United States and are valued at approximately \$27,800,000.

*b. Highway construction*

The five-year plan contemplates a yearly construction of 1,000 km. of highways. A great number of excavators, scrapers, bulldozers, motor graders, dumpers, motor trucks, compressors, concrete mixers, elevators, rollers, tractors, sprinkler trucks, lifts, etc., are necessary. . . . These imports are valued at \$18,900,000.

*c. Workshops*

One central and twelve district workshops, necessary for the construction of railroads and highways, will be built. Materials and equipment necessary for these workshops [are] to be imported from the United States. . . . The foreign exchange needed for these imports is \$3,350,000.

*d. Ports*

Turkey needs, besides the natural ports of Istanbul, Izmir and Iskenderun, a few artificial ports. Especially the Black Sea Coast offers very little protection to navigation, whereas most of the domestic sea transportation is on the Black Sea. Especially the transportation of coal encounters great difficulties on the Black Sea. This fact has made it imperative to improve the coal-exporting port of Ereğli, and to construct other ports on the Black Sea. The contract for the construction of the port of Trabzon has been awarded to a contractor.

(1) To improve the port of Ereğli equipment and materials . . . will be imported from the United States and are valued at \$670,000.

(2) Material and equipment for the construction of the port of Trabzon and later of other ports will be imported from the United States. The goods to be imported for the above-mentioned purpose . . . are composed mainly of floating cranes, dredgers, tugs, locomotives, freight cars, etc., and valued at \$1,390,000.

The total amount of foreign exchange required for the construction of railroads, highways and ports is \$52,110,000.

3. *Construction of airports and the purchase of materials and equipment necessary for the airlines*

The most important means of transportation of the postwar world is without doubt the airplane. Turkey feels the necessity of taking the required steps in this field. The existing airlines are far from meeting the need. During the war new developments in this field were not possible. The urgent needs of the Turkish airlines are the construction of five new airports, the purchase of necessary vehicles for these airports, the installation in Istanbul and Elâzığ of two workshops, the installation of radio stations and other aids to navigation and the purchase of airplanes and spare parts. . . . Foreign exchange in the amount of \$12,932,847 is needed to import these installations, equipment and material from the United States.

4. *Hydroelectric installations*

Various power plants and aerial cables are needed to provide the necessary electric power to the transportation system. Equipment and materials necessary for these installations will be imported from the United States and are valued at \$11,100,000.

5. *The communication system*

The transportation system of a country cannot operate efficiently without a good communication system. The present Turkish communication system is composed of 2 radio stations, 1,085 post and telegraph offices, 31,619 kilometers of telegraphic lines, 70,123 kilometers of cables and telephone communications connecting the principal cities. This system must be improved in order to meet the requirements of the continuing economic development of the country. The following steps are to be taken in order to improve and to expand the communication system:

a. Installation of wireless stations, improvement of the lines and installation of capacitors. Foreign exchange required to import equipment and material for these purposes amounts to \$15,833,000.

b. The sum of \$11,110,000 is needed to import from the United States necessary equipment for the establishment of telephone exchanges and for the materials of telephone and telegraphic lines.

c. The sum of \$3,611,000 is needed to purchase overground and underground cables for the above-mentioned installation.

d. A factory was established to provide for the upkeep and repairs of the existing communication system. It is necessary

to improve and enlarge this factory in order to meet the requirements of a larger communication system. Materials costing approximately \$550,000 are to be imported from the United States in order to be used in this factory.

The total of the foreign exchange needed for the communication system is \$31,107,000. The credits needed for the above-mentioned transportation plans can be summarized as follows:

1. The purchase of materials and equipment necessary for the operation, repair and upkeep of the lines and the establishment of industries required for the operation of the system	\$138,233,400
2. Construction of railroads, highways and ports	52,110,000
3. Construction of airports and the purchase of equipment and materials necessary for the airlines	12,932,847
4. Hydroelectric installations	11,100,000
5. Communication system	31,107,000
	<hr/>
	\$245,483,247

The improvement and enlargement of the transportation system of Turkey will without doubt play an important part in the economic development of the country.

### *C. Agricultural plan*

Turkey is primarily an agricultural country. According to the census of 1935 approximately 6,480,000 persons are engaged in agricultural occupations. The number of persons employed by industry was 656,421. From 1935 on the number of industrial workers has increased. The industrial and transportation programs, mentioned above, will without doubt transfer a great number of agricultural laborers to the fields of industry and transportation. In spite of all these changes the number of persons having agricultural incomes will be much superior to those having industrial incomes.

Therefore in order to raise the standard of living of the great masses, the agricultural incomes should be increased. The Turkish government with this goal in view has prepared the following plans:

1. Irrigation plan
2. Forestry and industries connected with forests
3. Agricultural products plants
4. The purchase and production of agricultural machinery and implements

5. Seed selecting and elimination of crop diseases
6. The control of diseases of livestock

1. *The irrigation plan*

The irrigation works going on in many parts of Turkey have been slowed down due to the shortage of materials and equipment caused by the war. To finish the work already begun and to start operations in other parts of the country Turkey desires to import from the United States . . . machinery, equipment and materials . . . valued at \$4,450,000.

2. *Forestry and industries connected with forests*

- a. *Sawmills*

20 sawmills with power generators, saws and repair shops capable of performing every kind of repair will be established . . . materials to be imported from the United States for these mills are valued at \$770,000.

- b. *Plywood and wood-drying plants*

Four plywood and drying plants with steam and electric generators, lumber cutting, peeling, drying, gumming and pressing equipment and repair shops will be established. The value of materials and equipment to be imported from the United States for these plants is \$400,000.

- c. *Wood distilleries*

Three plants with steam and electric generators, and equipment for cutting, pressing and distilling, will be established for the production of creosote, turpentine, wood vinegar, etc. The material and equipment to be imported from the United States for this purpose is valued at \$225,000.

- d. *Narrow-gauge railway equipment*

Narrow-gauge railway equipment to be used in the forests will be imported from the United States. The equipment is composed of locomotives, cars and rails. . . . The equipment is valued at \$780,000.

Turkey needs \$2 million in foreign exchange for her forestry and industries connected with forests.

3. *Agricultural products plants*

- a. *Dairies*

10 dairies with a daily producing capacity of 40 tons per day [will be established]. The power generators and accessories to be imported from the United States are valued at \$310,000.

b. *Vegetable fats plants*

Three vegetable fats plants with a yearly producing capacity of 3,500 tons will be established. . . . The value of the equipment to be imported from the United States is \$835,000.

c. *Wine and fruit juice plants*

Three plants with a yearly producing capacity of 30,000 hectoliters will be established. The equipment to be imported from the United States . . . is valued at \$354,000.

d. *Fruit and vegetable canning plants*

Ten plants with a yearly producing capacity of 500 tons will be established. The equipment that will be imported from the United States for these plants . . . is valued at \$278,000.

e. *Vegetable crude rubber plant*

A vegetable crude rubber plant of a yearly producing capacity of 500 tons will be established. The equipment to be imported from the United States is . . . valued at \$162,000.

The total need of foreign exchange for agricultural products plants is \$1,780,000.

4. *Production and purchase of agricultural machinery and implements*

a. *Enlargement of the existing plants*

The plants already existing at Adana, Ankara and Adapazari will be improved and enlarged. . . . The cost of importing [the] equipment from the U. S. will be \$1,746,000.

b. *Tractor plant*

A plant with a yearly producing capacity of 3,000 tractors will be established. The equipment necessary to this plant . . . will be purchased from the U. S. and is valued at \$5,555,000.

c. *Carriage plant*

A plant with a yearly producing capacity of 10,000 four-wheeled carriages will be established. . . . The estimated cost of the equipment to be imported from the United States for this plant is \$695,000.

d. *Plow plant*

A plant with a yearly producing capacity of 38,400 plows, disc harrows, rollers, etc., will be established. . . . Equipment valued at \$307,000 will be imported from the U. S. for this plant.

e. *Harvester plant*

A plant with a yearly output of 5,530 harvesting, mowing and other machines will be established. . . . The cost of equipment to be imported from the U. S. is \$5,000,000.

f. *Agricultural hand implements plant*

A plant with a yearly producing capacity of 3,730,000 spades, pitchforks, shears, scythes, etc., will be established. . . . The estimated cost of the equipment to be purchased from the U. S. is \$200,000.

g. *Plant for the manufacture of tools and implements for combating diseases of animals and crops*

A plant with a producing capacity of 10,000 metallic pulverizers a year will be established. The cost of the material to be imported from the U. S. is \$139,000.

h. *Agricultural tractors, harvesters and trucks to be purchased from the U. S. for government agencies and farmers*

A total of 2,995 machines will be purchased from the United States for the government agencies and 5,300 machines for the farmers. The estimated value of 8,295 machines is \$22,904,000.

i. *Repair shop for agricultural machinery and tractors*

A repair shop for repairing agricultural machinery and tractors will be established. . . . Equipment with an estimated value of \$324,200 will be imported from the U. S.

The total credit needed for the manufacture and purchase of agricultural machinery and implements is \$23,228,200.

5. *Seed selecting and the combating of crop diseases*

a. 600 institutions for seed selecting and chemical treatment will be established. These institutions will have power generators, selectors and accessories. Equipment of an estimated value of \$555,000 will be imported from the U. S.

b. A plant for the production of drugs to combat diseases of livestock will be established. . . . The material to be imported from the U. S. is valued at \$115,000.

6. *Plant for the production of drugs to combat diseases of livestock*

A plant for the production of drugs to combat diseases of livestock will be established. The cost of material to be imported from the United States is \$110,000.



The credits required to carry out the agricultural plans can be summarized as follows:

1. Irrigation	\$4,450,000
2. Forestry and connected industries	2,000,000
3. Plants for agricultural products	1,780,000
4. The purchase and production of agricultural machinery and implements	23,228,000
5. Seed selection and campaign against crop diseases	670,000
6. To combat livestock diseases	110,000
	<hr/>
	\$32,238,200

The plan explained above will play an important part in the mechanization of Turkish agriculture and will lead to more scientific methods of farming.

Turkey has spent great efforts in this field. The total production of cereals, industrial crops and beans had increased from 2.6 million tons in 1927 to 9.4 million tons in 1937. The use of machinery to a much greater extent in farming will without doubt cause considerable increase in agricultural production and incomes.

#### *D. Projects connected with public health*

The standard of living of a country can be raised only through an increase of national income. National income can be increased only by increase of production. In the national increase of production the importance of labor is not less than that of capital equipment. Therefore Turkey has to increase her manpower in labor and make it more efficient. The primary factor that decreases the efficiency and amount of labor is diseases which are frequently epidemic or contagious. For this purpose Turkey is combating malaria, syphilis, trachoma, tuberculosis. A great amount of technical equipment is needed to increase the efficiency of these campaigns.

The requirements of the different departments of the Ministry of Public Health and Social Aid are as follows:

##### *1. Administration of Hygiene*

- a. The Administration of Hygiene wishes to establish 200 health centers in different parts of the country. . . . The estimated cost of all . . . materials and equipment is \$4,000,000. These goods will be imported from the U. S.

b. Jeeps, motorcycles, ambulances, mobile cleaning and washing installations, mobile laboratories, x-ray installations to be used in antitrachoma, antisyphilis, and antituberculosis campaigns [are needed]. . . . This equipment will be imported from the U. S. and has an estimated value of \$675,000.

## 2. *Social Aid Administration*

. . . the requirements of hygienic, medical and administrative supplies of this administration . . . will be imported from the U. S. and are valued at \$753,300.

## 3. *Refik Saydam Institute of Hygiene*

The requirements of this institute are mainly materials and tools made of glass, biological and chemical materials, various equipment, scientific equipment and material and materials necessary for the workshops of the institute. These materials and equipment will be imported from the U. S. and cost \$595,200.

## 4. *School of Hygiene*

This school needs various teaching and optical equipment, chemical materials, glass materials and tools. The estimated cost of importing these goods from the U. S. will be \$22,250.

## 5. *Antimalaria campaign*

A complete list of equipment to be purchased from the U. S. for the antimalaria campaign is estimated at a cost of \$1,005,550.

## 6. *Institute of Tropical Diseases*

. . . equipment to be purchased from the United States for the Tropical Diseases Institute is . . . estimated at \$241,590.

To sum up, a sum of \$14,074,590 is needed to carry on the program and plan of the Ministry of Public Health and Social Aid.

## E. *The plan of the Ministry of Monopolies and Customs*

According to budget estimates the Turkish government derived 11 per cent of her revenue from customs duties in the year 1944 and 5 per cent in 1945. According to the same estimate 19 per cent in 1944 and 20 per cent in 1945 was derived from the monopolies.

Tobacco, alcohol and alcoholic liquors, salt, coffee, tea, matches, cigarette lighters, hunting ammunition, explosives and playing cards are under government monopoly. A large industry was established to produce these goods. This industry besides raising the value of tobacco, barley, grapes, etc., by using them as raw materials within industries, provides employment for thousands of workers.

Turkey while organizing her economic system provided for the development of this industry. The sales of manufactured tobacco amounting to 42,138,000 liras and 9,979 tons in 1930 was increased to 121,615,000 liras and 17,629 tons.

The production of alcoholic liquors was increased from 3,576,000 litres in 1931 to 7,050,000 litres in 1944.

The production of salt was increased from 170,428 tons in 1937 to 266,330 tons in 1944.

Therefore the work of the monopolies besides providing a large revenue to the state has also an important place in the economic structure and national income of Turkey.

The Turkish government has decided to reinforce the industries producing the monopolized items in order to increase her revenue and the national income.

In order to prevent contraband and an illegal decrease of the state revenues, the equipment of the Coast Guard should be improved. The following plans have been formulated with the above-mentioned ends in view.

1. *Equipment necessary for the Coast Guard*

. . . boats, motor vehicles, communication equipment, etc., required by the Coast Guard . . . will be imported from the United States at an estimated cost of \$2,734,950.

2. *Plan for industries under state monopoly*

a. *Breweries*

In addition to the existing breweries four new plants will be established. Their total producing capacity will be 50 million litres a year. . . . The equipment and installations of these breweries will be imported from the U. S. at an estimated cost of \$5,550,000.

b. *Malt plants*

Two malt plants will be established. Their total yearly producing capacity will be 14,000 tons. The equipment and installations of these plants will be imported from the United States at an estimated cost of \$1,670,000.

c. *Bottle plant*

A plant capable of producing 50 million bottles a year will be established at Istanbul.

d. *Cigarette plant*

In addition to the existing cigarette-manufacturing plants a new plant with a yearly producing capacity of 12 million

cigarettes will be established in Istanbul. The equipment and installations of this plant will be imported from the United States at an estimated value of \$2,770,000.

*e. Hunting ammunition plant*

A hunting ammunition manufacturing plant will be established. The estimated cost of equipment to be imported from the U. S. for this plant is \$415,000.

*f. Match factory*

In addition to the existing match plant a new factory producing book matches will be established. The yearly producing capacity of this plant will be 300 million. The estimated cost of equipment to be imported from the United States is \$415,000.

*g. Workshops and repair shops*

A central workshop in Istanbul will be established and the existing work and repair shops in different factories will be improved and enlarged. The equipment to be imported from the United States for these shops is valued at \$1,110,000.

*h. Miscellaneous*

The Administration of Monopolies will import from the United States motor boats, trucks and cranes to be used in the various organizations of this Administration. The estimated cost of these imports is \$550,000.

To sum up, the requirements of the Ministry of Customs and Monopolies are as follows:

Coast Guard	\$2,774,950
Industries	\$13,860,000

*F. Miscellaneous*

1. It is necessary to improve water, gas and electric installations in various cities and towns and establish new installations. The economic importance of these installations is very obvious.

a. Pipes and other necessary equipment and material of an estimated value of \$2,780,000 will be imported from the U. S. for waterworks of various cities.

b. Equipment and materials with an estimated value of \$5,560,000 will be imported from the United States to be used for the electric and gas installations of cities and towns.

2. Turkey needs badly various kinds of construction materials. A severe housing shortage is felt in the principal cities. Construction materials of an estimated value of \$7,200,000 will be imported from the United States.

3. To cover the unexpected expenses of the various projects explained above, 1.7 per cent is added to the total. This tolerance amounts to \$8,264,013.

#### CONCLUSION

As a study of the above-mentioned plans shows, Turkey needs the following credit in order to register a marked advance toward economic development:

A. Industry	\$167,761,000
B. Transportation	245,483,247
C. Agriculture	32,238,200
D. Public health	14,074,590
E. Customs and monopolies	16,634,950
F. Miscellaneous	23,809,013
	<hr/>
	\$500,000,000

It has been made clear above that all of these credits will be allotted to works beneficial to the economic development of the country.

Turkey's trade balance had a yearly deficit of 60 million liras in the years 1922-1929. But after 1930 by means of exchange control measures and later through the increase in domestic production the deficit was avoided. The trade balance showed a surplus of 9 million liras a year in the years 1930-1934, of 12 million liras a year in the years 1935-1938 and of 46 million liras a year in the years 1938-1944 and 85 million liras in 1945.

It is evident that the war conditions were one of the factors in the increase of this surplus after 1942. But prior to this date the main factor in the favorable balance of trade was the economic development and increase in production in Turkey.

At present Turkey pays \$22 million a year for the service of her external debts. If the requested credit is granted it is natural to expect a sizable increase in this liability. But it is expected that the balance of payments will have the following positive developments through the adoption of the above-mentioned plans.

### 1. *Increase of exports*

a. Through the increase in the output of the mines a yearly increase in the exports of mineral valued at \$16 million is expected.

b. The fishing industry, which is not included in the submitted plans, is being reorganized. The export of fish yields at present an income of \$6 million a year. It is expected that after its reorganization this industry will yield a yearly income from exports of \$18 to \$24 million.

c. After the establishment of new breweries and wine factories an export of these products is expected. Although it is too early to obtain definite figures at present the amount of foreign exchange that will be earned through this channel should not be minimized.

The increase in exports expected to be realized through further industrialization of Turkey can be summed up at \$40 to \$45 million a year.

### 2. *Savings in foreign exchange payments*

The execution of the above-mentioned plans will bring about a great increase in domestic production. The saving in foreign exchange payments expected to be raised through this increase of output is mentioned in the part of this memorandum dealing with the industrial plan. The expected savings are estimated at \$65 to \$70 million.

In addition to this a great part of the requirements of the transportation system and the country's need for agricultural machinery and implements will be met by domestic production. This fact will also have a positive effect on the Turkish balance of payments.

### 3. *Increase in agricultural production*

Upon the realization of the agricultural plans, agricultural production will increase through the use of more efficient methods and machinery. Together with the increase in production a diversification and improvement of the quality of the crops will be reached. These with a lower cost of production will make possible an increase in the exportations of agricultural products. This increase in exports will have a positive effect on the Turkish balance of trade.

To sum up, a saving of \$120 to \$150 million on the Turkish balance of payments can be expected through the economic develop-

## TO BE IMPORTED FROM THE UNITED STATES

	<i>Millions of Liras</i>	<i>Thousands of Dollars (Rate = 1.80 TL to the Dollar)</i>
Ministry of Economy		
Machines, structures, materials and other means for mines, and industrial plants (urgent plan)	300	167,761
Ministry of Transportation		
Ships, port installations, locomotives, cars, workshops, pits and postal and telegraphic materials	329	182,273
Ministry of Public Works		
Construction machinery and materials for railroads, highways, waterworks, ports, rails, workshops, hydraulic and thermic electric plants	150	83,200
Ministry of Agriculture		
Installations for the exploitation of food and forest products, workshops for agri- cultural machinery, and drugs	50	27,788
Ministry of Health		
Accessories and installations for fixed and ambulant health centers	25	14,074
Ministry of Monopolies		
For the establishment and enlargement of brewery, malt, bottle, cigarette, hunting materials and match plants, machines and tools for repair shops and various means of transportation	30	16,634
Miscellaneous	16	8,268
	<hr/> 900	<hr/> 500,000

ment brought about by the application of the plans herein outlined.

As the application of these plans will be spread over a few years it is difficult to determine now exactly the amount of savings in foreign exchange and increase in foreign exchange receipts per year and also to fix a date for the beginning of this change in the Turkish balance of payments. The application of the projects depends on the time arrangement according to which the credits will be granted. The fact that the prices of import and export products have not yet been stabilized and harmonized is a factor of uncertainty in the calculations.

This development of the balance of trade and increase in the national income brought about by the application of these programs will facilitate the payment of interest and installment of the credits granted to Turkey and at the same time will enable the country to import goods that will be a factor in raising the standard of living of the Turkish people. Among the goods which Turkey is able to import only on a restricted scale are motor cars, radios, refrigerators, and other electrical implements. The main producer of this category of goods is the United States.





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